

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1.942  
H42 R27

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

---

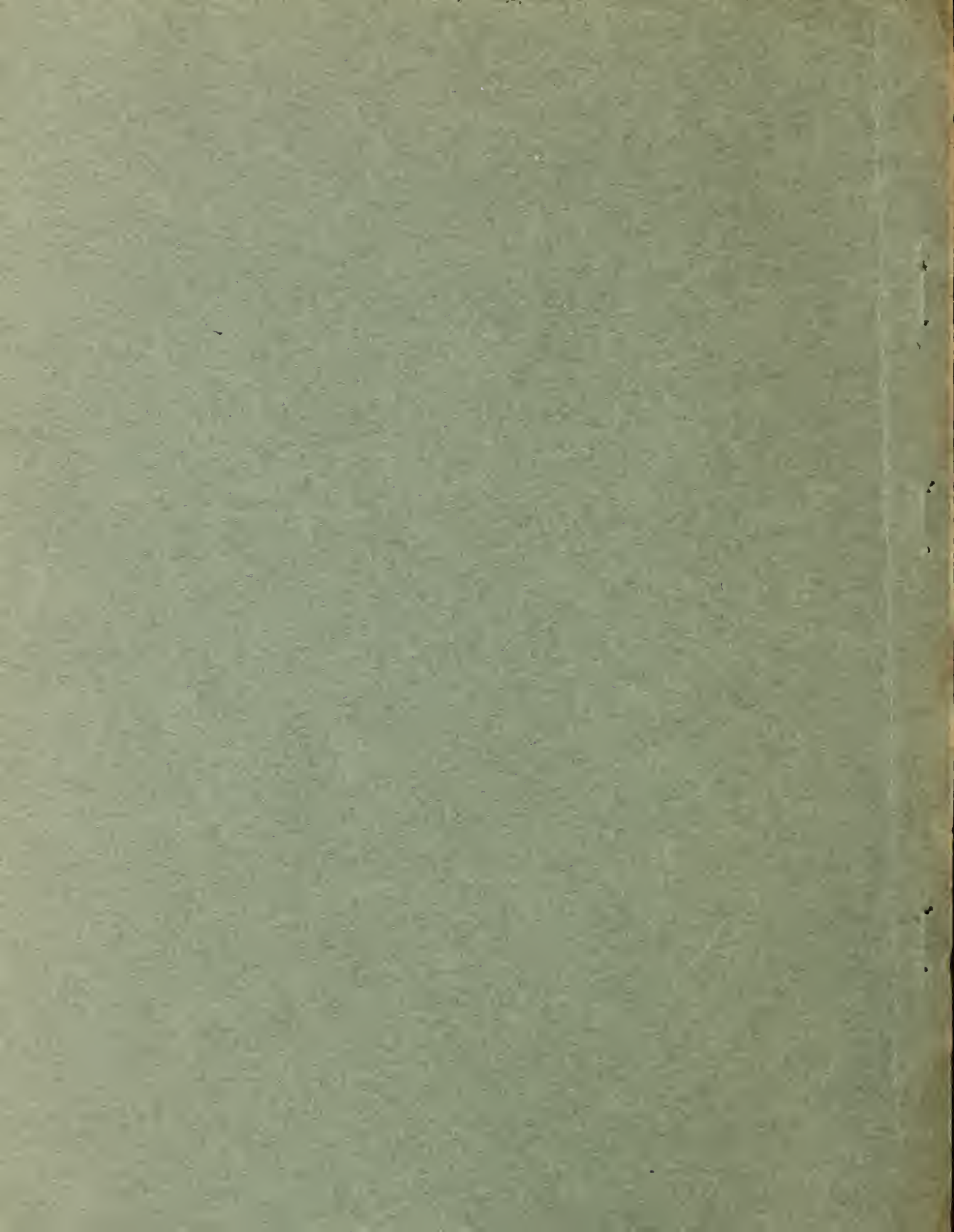
RELIABILITY AND ADEQUACY  
OF  
FARM WAGE RATE DATA

---

Prepared by  
R. F. Hale, Senior Agricultural Statistician,  
with the aid of  
R. L. Gastineau, Assistant Agricultural Statistician.

Washington, D. C.

February 1940



CONTENTS

	<u>Page</u>
History of the wage rate series . . . . .	1
The present method of collection . . . . .	2
Weighting and averaging wage rate data . . . . .	4
Reliability of reported wage rates . . . . .	5
Cash wage rates versus real wages . . . . .	8
Farm wage rates, without board, adjusted for changes in rural living costs (fig.1) . . . . .	9

AppendixTable No.

1. Number of reports on farm wage rates, October 1 of selected years, 1924-39, by States and geographic divisions.
2. Number of reports on wage rates for picking 100 pounds of seed cotton in principal Cotton States, selected years, 1924-39, by States.
3. Farm employment and wage rates, October 1, 1939, by classes.
- Farm wage rates -  
Selected illustrations of size of sample, measures of dispersion, and probable errors:
  4. By the month, with board
  5. By the month, without board
  6. By the day, with board
  7. By the day, without board.
8. **Piece-work wage rates:** Prices paid for picking 100 pounds of seed cotton; selected illustrations of size of sample, measures of dispersion, and probable errors, 1939.
9. Farm wage rates and cotton-picking rates: Selected illustrations of statistical measures of difference and probable errors of difference in unpaired samples.
10. Actual farm wage rates per month and per day without board, index of prices paid by farmers for commodities used for family maintenance, and adjusted farm wage rates, United States, 1910-39.
11. Farm wage rates and index numbers, 1866-1909 (1910-14 = 100).

CONTENTS - ContinuedExhibit

- A. Excerpt from the March 1935 issue of Crops and Markets showing piece-work wage rates and related data.
- U.S. farm wage rate releases:
  - B. Jan. 13, 1939
  - C. July 14, 1939
  - D. Oct. 13, 1939
- E. U.S. farm employment release, Nov. 15, 1939.
- F. Facsimile of October 1939 General Schedule (Illustrating type of question used to collect farm labor data).
- G. Facsimile of November 1, 1939 Cotton Schedule (Illustrating type of question used to collect data on cotton-picking rates).



UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

RELIABILITY AND ADEQUACY OF FARM WAGE RATE DATA<sup>1/</sup>

The compilation and study of statistics on farm wage rates were inaugurated by the United States Department of Agriculture more than 70 years ago. The first inquiry, requesting monthly and daily wage rates paid by farmers, was sent in 1866 to the corps of voluntary correspondents reporting regularly to the Department on the condition of growing crops. The summarization of the figures collected at that time represents the earliest attempt made, by any organization, to determine scientifically a national average of per unit labor costs.<sup>2/</sup> These series of wage rates have been continued in substantially the same form to date. As such, they constitute one of the few groups of statistical series for the agricultural industry that followed closely upon the establishment of the Department's crop reporting service 76 years ago.

History of the Wage Rate Series

There was little regularity in the timing of the wage investigations of the Department from 1866 to 1909. In 19 of these 44 years, or about once every 2 years, inquiries were made as to the average daily and monthly rates prevailing during the year. The first investigation made in 1866 was followed by another in December 1869 which referred to the calendar year 1869. The third inquiry in 1875, and succeeding ones until 1892, were made in the spring of the year. For this period (1875-1892) the years to which the results apply are somewhat uncertain. In consequence, they are published after dual-date designation, such as "1874 or 1875." Intermittently during the period 1893 to 1909 inquiries were made in the autumn of the year to which the data related. Beginning in 1909 and continuing through 1923, the Department made inquiry each year regarding average daily and monthly farm wage rates for the year.

The regular crop reporters were circularized for this information. The results obtained from their reports provided a fairly comparable series of day wage rates for "other than harvest work" but the historic record of monthly rates for this period 1866 to 1923 is not entirely comparable. From 1866 to 1890, correspondents were asked to report wage rates per month for workers hired by the year. For the first three inquiries (1866, 1869, and 1874 or 1875), information on monthly rates paid to workers hired for the season also was solicited. Beginning in 1891, however, monthly rates were reported on a combined annual and seasonal basis. In 1909, the old distinction was restored and a weighted average of the two systems of hiring monthly hands was computed.

---

<sup>1/</sup>Prepared by R. F. Hale, Senior Agricultural Statistician, with the aid of R. L. Gastineau, Assistant Agricultural Statistician.

<sup>2/</sup>Holmes, George K., Wages of Farm Labor. U.S. Dept. Agr., Bur. Statis. Bull. 99, 1912. (Nineteenth investigation, in 1909, continuing a series that began in 1866.)

The farm wage rate inquiries were put on a quarterly basis in 1923. Since then questions have been carried on the regular first-of-the-month crop questionnaires for January, April, July, and October. The regular annual inquiry was made for the last time in December 1923 for the purpose of linking the annual and quarterly series. On the old annual inquiry, respondents were asked to report day wage rates "at harvest," and for "other than harvest" labor. The quarterly series of daily and monthly rates relates to "average wage rates being paid to hired labor at the present time in your locality." The standard instruction to correspondents is to include in their estimates of day wage rates "average daily earnings of pieceworkers."

The quarterly type of inquiry tended to eliminate the necessity for a distinction between wage rates for harvest hands and for other than harvest labor. The relationship between returns from the overlapping quarterly and annual inquiries in 1923, however, indicated that, for comparative purposes, the "other than harvest" wage rates are really more nearly comparable with the quarterly rates than any combination of "at harvest" and "other than harvest" rates. Beginning with 1924 these indications of change in the general wage rates have been supplemented with information regarding rates paid for specific tasks. A question has been included annually on the schedule sent cotton reporters regarding the rates paid workers for picking 100 pounds of seed cotton. Piecework wage rates paid by farmers for some of the more common grain and fruit harvest tasks were collected for the 1934 crop harvest season. A few of these questions were repeated for 1938.

### The Present Method of Collection

The regular quarterly wage rate questions have been continued in almost exactly the same form since 1923. Four wage rate questions appear at quarterly intervals on the general schedule sent to crop correspondents. They relate to average rates per month with board, per month without board, per day with board, and per day without board.

These questions follow a series of items on local crop conditions, yields, and production, and appear with questions regarding employment on the respondent's farm and the supply of and demand for labor in his locality. The wage rate questions also apply to his locality. The respondent's judgment is requested as to agricultural wage rates prevailing locally rather than to those paid by him.

A copy of the form sent reporters in Minnesota, the Dakotas, Montana, and Wyoming in October of this year is included in the appendix to this report. (See exhibit F.) Similar schedules were sent to about 70,000 farmers throughout the country. On October 1, 1939, approximately 21,400 farmers reported on one or more of the four wage rate items for their locality. The number of reports tabulated by States, for October 1 of each of 4 selected years during the last decade and a half, are shown in table 1 of the Appendix. For October 1939, over 12,000 reports were tabulated for each of the day rates and the monthly rate with board, while nearly 9,400 returns were used for the less common method of paying workers hired by the month without board.



The voluntary nature of the returns from these crop correspondents makes the quarterly wage rate sample somewhat selective. Those who report do so because of a willingness to cooperate, and they have been found generally to be above average in public spirited interest and knowledge of local conditions. A preponderance of the returns is from operators of general crop and livestock farms, and reports are received from nearly every agricultural county in the country.

Unfortunately, schedules sent to other lists of fruit, truck, dairy, and similar special reporters do not carry questions regarding wage rates. It is doubtful if wage rates paid on such farms are adequately represented in the regular quarterly sample. They are, however, reflected to some extent inasmuch as the regular crop correspondents are requested to report average farm wage rates for their locality rather than rates paid their own hired workers.

It can definitely be said that the Department series of daily and monthly rates is based upon reports from farmers employing more than average amounts of farm labor. Employment on the farms of crop correspondents on January 1, 1935, averaged 0.77 <sup>3/</sup> hired workers per farm, compared with an average of only 0.24 hired workers enumerated by the census as of that date.

It is believed, in general, that these daily and monthly rates furnish a fairly accurate picture of the average rates paid to farm laborers in the general crop-producing regions throughout the country. Laborers hired by the month are usually kept throughout the year or during the season of greatest farm activity. The reported day rates, either for year-round or special harvest work, also reflect rather well the level of day wages, where workers are commonly hired in this manner and where rates are fairly standard in a given community.

It is entirely possible that the reported figures may fail in some cases to reflect the actual level of day-rate equivalents of piece-work rates paid. Some correspondents probably overlook this factor in submitting estimates for their locality inasmuch as pieceworkers may be hired infrequently in areas of general crop and livestock farming. Others may overestimate the returns per worker where one worker may be paid a piece-rate not only for the labor he performs but also for that of other members of his family. It is extremely doubtful if reported day rates reflect the level of average daily earnings of employees hired through labor contractors.

Supplementary information on **piece-work** rates paid farm workers is gathered regularly only for cotton picking. Since 1924, a question regarding the average price paid for picking 100 pounds of seed cotton has been carried on the regular November schedule sent cotton growers to inquire regarding the condition of the crop and the average yield. A copy of this questionnaire is included in the Appendix. (See exhibit G.) The returns to this inquiry are far more numerous in the principal cotton States than the reports on

---

<sup>3/</sup>Based on returns to questions comparable with census. This differs slightly from published figures which are based on employment on a given date rather than during "2 or more days" of preceding week.

standard day and monthly rates on the general crop schedule. In 1939, this special November inquiry yielded 8,575 reports. Such extensive coverage of all the cotton-growing areas would appear sufficient to establish accurately the actual level of monthly rates paid for this type of work. The number of returns from the Cotton Belt is shown by States for selected years in table 2 of the Appendix.

#### Weighting and Averaging Wage Rate Data

Straight averages of the data reported on the general crop schedule are employed to establish the level of monthly and daily wage rates paid by farmers in each State. Prior to 1939, the number of male agricultural laborers in each State, as reported in the decennial census enumeration, had been used as a basis for weighting the State rates in computing regional and United States averages. The weights used in reworking the data for the period 1866 to 1906 were derived from reports of the census of occupations for appropriate enumeration periods.<sup>4/</sup> From 1909 to 1912, weights based on the 1910 Census were used; from 1913 to 1917, a mean of the 1910 and 1920 census figures; and from 1918 to 1938, the 1920 census data.

The employment of census data for weights, however, was far from satisfactory inasmuch as current data were never available and the geographic shift in workers from one decade to another would have required a revision of the national and regional wage rate averages after the appearance of every new census tabulation in order to maintain the representativeness of the national wage series. Such historic revisions were much too costly to undertake with current appropriations for agricultural statistical work.

In 1938, the Works Progress Administration completed and published historic estimates of numbers of hired workers employed on farms for the period 1909-36.<sup>5/</sup> On the basis of the data compiled for this Works Progress Administration report, the Agricultural Marketing Service constructed historic series of the estimated number of hired workers employed on farms, by census geographic divisions, and has since kept these regional employment series current in its regular reports. From the various calculations involved, it became possible for the first time to obtain rough estimates of farm employment, by States. To these were applied the proportion of workers hired by the month and by the day to derive a distribution of numbers employed for use in weighting the several wage rate series.<sup>6/</sup> This system of weighting was employed in revising the historic estimates back to 1910 and continues in use currently in the determination of regional and national averages of standard wage rates. A summary of the rate and weight data for October 1 of this year is shown in table 3 of the Appendix.

---

<sup>4/</sup>See footnote 2/, p.1.

<sup>5/</sup>Shaw, E.E., and Hopkins, J.A., Trends in Agricultural Employment in the United States. U.S. Works Prog. Admin., Natl. Res. Proj. Rpt. No. A-8, Nov. 1938 (Philadelphia, Pa.)

<sup>6/</sup>Folsom, J.C., Perquisites and Wages of Hired Farm Laborers. U.S. Bur. Agr. Econ. Tech. Bull. 213, 30 pp., illus. 1931.

For the weighting of piece-work harvesting rates, crop production statistics provide a fairly satisfactory basis. A straight average of reported rates for picking 100 pounds of seed cotton is obtained for each crop-reporting district, of which there are usually 9 in a State. These district averages are then weighted in proportion to cotton production in the respective districts to obtain the picking rate for the State. The national average of rates paid is finally obtained by weighting the State rates with the State estimates of lint production published by the Crop Reporting Board.

#### Reliability of Reported Wage Rates

As a rule, for the general farming areas throughout the country, there is reason to believe that the data reported by crop correspondents reflect rather closely the actual level of prevailing cash wage rates. In some instances farmers may tend to report cash rates paid only to efficient able-bodied hired men capable of doing a full day's work, without making sufficient allowance for the considerable number of workers who cannot give a maximum output because of age, youth, inexperience, or inefficiency, and who are consequently employed at lower wages.

It is doubtful if such a tendency would produce any marked upward bias in the data reported in the principal areas of staple crop production since rates become more or less standardized in any given community as a result of the competition among farmers for the existing labor supply. This, however, is more likely to be true of monthly rates paid workers hired for the year, or for the entire crop-growing season than for day rates paid casual workers engaged for seasonal jobs of short duration.

Still, there are many factors that work to produce variation in individual rates of pay even in the same locality. Variation in worker efficiency and in individual bargaining power may result in considerable range in day rates paid casual workers. Variation in the amount of and number of perquisites other than board and lodging that are furnished the hired man also may result in variations in cash wages paid either monthly or day workers.

All of these factors may be taken into account by the correspondent when considering his estimate of average rates paid in the locality in which he lives. Although it has not been possible to apply any objective tests, the reporters appear, for the most part, to be doing a reasonably satisfactory job in approximating the generally prevailing daily and monthly rates. In areas and months where their estimates of daily rates must be based largely on piece-work equivalents, however, their job is further complicated. When families are hired as a unit for such tasks, either directly or through labor contractors, the reporting of an average equivalent day rate per person becomes increasingly complex; it is entirely possible that some of the child or female workers may be entirely overlooked when the correspondent figures the average rate of pay. Unfortunately, funds have not been available to permit an objective check on the reliability of the reports from areas where such hiring practices are in vogue. It is reasonable to expect, therefore, that the error in individual reports covering such localities would be greater than the error in reports for areas where farm labor is usually hired by the day or by the month.



In addition to the variation in farm wage rates in particular localities, there is a tremendous geographic variation, that is between localities, in a specific rate at any one particular time. The demand for workers varies from area to area as a result of differences in the labor requirements for the several crop and livestock enterprises, and in the financial ability of farmers to hire labor. The supply of workers available for hire will differ from locality to locality in line with variations in the total labor supply and in the state of employment in nonagricultural industries. Regional variations in farm wage rates also appear as a result of geographic differences in the cost of living and in the customary mode of living. The results of a statistical analysis of these variations, as reflected in the sample data reported from selected States in October 1939, are shown in tables 4 to 8 of the Appendix.

On October 1, 1939, the national average of wage rates per day without board was \$1.57. This rate varied widely throughout the country, however, with State average rates ranging from 85 cents in South Carolina to \$3 per day in New Hampshire. The average of 492 reports from Pennsylvania, for example, was \$2.29 per day. The reports for this one State ranged from a low of \$1.25 per day in the northwest section of the State to a high of \$3.75 per day in the southeast section. The statistical analysis of this sample reveals that two-thirds of the reports fell within a range of about 53 cents (the standard deviation) on either side of the mean of all reports. This, in statistical parlance, amounts to a coefficient of variability of approximately 23 percent of the mean. If it is assumed that the individual reports were representative, then it also can be said, statistically, that the probable error of the average of \$2.29 reported paid per day without board by Pennsylvania farmers on October 1, 1939, was 1.6 cents. This merely means that the chances are one to one that the average of a much larger sample of reports of the same size, obtained at the same time and in the same manner from a similar group of Pennsylvania farmers, would have averaged within 1.6 cents or 0.7 percent of the present mean. On a similar basis, the chances are ninety-nine to one that the average of a much larger group of reports, obtained at the same time and under similar conditions, would not have differed from the mean of the present sample by more than four times the relative probable error, or 2.8 percent.

The relative probable errors of the averages of the crop reporter returns vary among States because of differences in the size of the sample, in the range of the reported wage rates, and in the magnitude of the averages upon which the percentage figures are based. In a majority of cases examined, however, the relative probable errors of the crop reporter returns are less than 1 percent. In the analyses of the cotton-picking rates, the error of the mean amounts to considerably less than one-half of 1 percent. Since the averages of reported figures are not exact, the Agricultural Marketing Service usually rounds its estimates of monthly wage rates to quarters of a dollar, and its estimates of daily rates and cotton-picking rates to multiples of 5 cents to avoid the appearance of over-refinement of accuracy.

The wage rate data find their most significant and reliable use in measuring changes in wage rate levels over time. In this connection, the

Table 1.-Voluntary reports on farm wage rates, October 1 of selected years, 1924-39  
by States and geographic divisions

State and division	1924				1929				1934				1939			
	Per month		Per day		Per month		Per day		Per month		Per day		Per month		Per day	
	: With-:		: With-:		: With-:		: With-:		: With-:		: With-:		: With-:		: With-:	
	board:	out:	board:	out:	board:	out:	board:	out:	board:	out:	board:	out:	board:	out:	board:	out:
	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber	Num- ber
Maine....	48	39	50	54	73	55	88	93	57	40	61	71	98	74	101	110
N.H.....	32	30	28	38	40	28	32	49	48	32	30	56	35	19	20	33
Vt.....	50	39	49	49	72	54	65	72	74	50	58	67	85	60	67	75
Mass....	34	24	16	38	62	49	31	81	45	30	24	65	52	34	17	69
R.I.....	7	7	5	9	13	11	9	16	5	6	6	8	8	6	3	8
Conn....	25	23	18	33	38	31	24	42	34	27	20	40	37	29	14	37
N.Eng....	196	162	166	221	298	228	249	353	263	185	199	307	315	222	222	332
N.Y.....	327	263	312	280	317	257	287	266	487	364	423	435	442	345	376	387
N.J.....	73	68	58	82	45	40	38	55	63	42	56	79	117	110	84	157
Pa.....	306	268	326	296	722	541	737	625	685	493	713	584	579	413	560	492
M.A....	706	599	696	658	1,084	838	1,062	946	1,235	899	1,192	1,098	1,138	868	1,020	1,036
Ohio....	300	250	350	300	215	171	228	214	396	279	487	409	480	375	525	490
Ind.....	250	261	263	227	315	276	271	253	414	344	454	438	305	265	340	354
Ill.....	255	231	244	228	306	248	268	233	444	350	434	415	673	527	637	575
Mich....	337	267	340	288	291	221	303	250	339	191	358	271	353	224	370	290
Wis.....	341	190	344	255	329	173	297	234	707	319	618	388	733	372	663	399
E.N.C....	1,529	1,199	1,541	1,298	1,456	1,089	1,367	1,184	2,300	1,483	2,351	1,921	2,544	1,763	2,535	2,108
Minn....	407	190	418	223	495	186	435	225	501	171	457	196	498	171	467	232
Iowa....	755	527	666	508	833	526	720	505	772	444	753	487	695	455	634	500
Mo.....	440	384	386	371	474	407	455	422	419	361	492	453	402	365	511	487
N.Dak....	128	39	134	32	259	92	208	74	310	78	237	75	298	87	259	99
S.Dak....	129	51	51	57	270	112	221	112	367	139	355	153	394	158	356	173
Nebr....	267	167	219	137	231	144	198	136	377	243	367	249	509	326	484	339
Kane....	796	619	740	563	329	262	322	265	553	402	587	441	660	561	740	643
W.N.C....	2,922	1,967	2,614	1,891	2,891	1,729	2,559	1,739	3,299	1,838	3,248	2,054	3,456	2,123	3,451	2,473
Del.....	32	22	37	37	9	8	12	11	24	8	25	22	32	29	32	35
Md.....	170	140	175	161	109	102	105	97	100	83	119	109	133	126	146	162
Va.....	207	211	223	223	310	310	374	374	158	158	206	206	156	156	225	225
W.Va....	60	58	75	75	90	86	136	131	141	121	251	198	202	185	352	321
N.C.....	315	311	334	351	198	192	215	226	213	193	272	295	245	234	319	353
S.C.....	97	97	97	106	128	130	120	139	158	174	178	221	221	234	242	299
Ga.....	490	486	449	470	345	336	323	338	275	279	290	329	475	478	505	612
Fla.....	57	62	52	97	87	95	74	160	109	75	84	153	86	87	74	157
S.A....	1,428	1,387	1,442	1,520	1,276	1,259	1,359	1,476	1,178	1,091	1,425	1,533	1,550	1,529	1,899	2,164
Ky.....	205	196	216	219	227	221	257	264	288	273	390	438	237	257	347	359
Tenn....	255	250	257	260	165	161	162	168	193	190	273	307	233	238	334	398
Ala.....	156	158	147	165	148	146	151	156	145	137	143	152	233	233	243	286
Miss....	211	211	222	222	201	191	199	216	156	129	163	182	227	205	243	283
E.S.C....	827	815	842	866	741	719	769	804	782	729	969	1,079	930	933	1,167	1,326
Ark.....	219	201	214	230	131	130	142	158	195	181	231	298	205	197	275	337
La.....	78	72	79	104	68	65	83	122	36	33	41	66	122	113	146	199
Okla....	266	233	286	256	250	209	272	255	263	213	337	326	379	346	497	518
Tex....	209	193	236	248	293	282	334	366	251	247	343	424	257	275	392	504
W.S.C....	772	699	815	838	742	686	831	901	745	674	952	1,114	963	931	1,310	1,558
Mont....	156	61	164	58	170	73	136	69	163	42	140	48	175	66	155	61
Idaho....	80	70	87	78	111	85	117	89	110	72	126	102	188	164	216	190
Wyo.....	74	42	62	37	71	44	64	44	85	44	71	49	97	62	91	63
Colo....	112	83	111	99	227	157	223	173	363	232	332	273	208	176	210	201
N.Mex....	52	44	54	50	36	27	39	37	81	58	85	85	59	45	67	82
Ariz....	12	13	17	15	10	13	11	19	18	9	18	24	10	12	9	31
Utah....	37	34	38	42	46	46	47	47	40	31	35	60	46	51	60	83
Nev.....	10	2	11	3	5	5	8	8	13	4	11	6	10	6	8	4
Mt.....	533	349	544	382	676	450	645	486	873	492	818	647	793	582	816	715
Wash....	141	76	132	92	89	63	76	74	176	89	158	161	248	174	212	252
Oreg....	27	22	28	19	93	60	87	88	122	71	139	139	202	135	175	219
Calif....	100	108	127	167	183	207	191	447	107	112	89	326	91	115	85	369
Pac....	268	206	287	278	365	330	354	609	405	272	386	626	541	424	472	840
U.S....	9,181	7,383	8,947	7,952	9,529	7,328	9,195	8,498	11,080	7,663	11,540	10,379	12,230	9,375	12,892	12,552



Table No. 2: Number of reports on wage rates for picking  
100 lbs. of seed cotton in principal Cotton States,  
selected years, 1924-39, by States

State and Division	1924	1929	1934	1939
N.C. ....	318	127	268	504
S.C. ....	194	174	414	542
Ga. ....	537	207	639	907
So. Atl. ....	1,049	508	1,321	1,953
Ala. ....	261	202	671	706
Miss. ....	406	141	765	994
Ark. ....	356	174	796	1,232
La. ....	247	83	266	530
Okla. ....	238	153	594	664
Tex. ....	645	293	1,505	1,563
So. Cent. ....	2,153	1,046	4,599	5,689
9 Cotton States	3,202	1,554	5,920	7,642

Agricultural Marketing Service.

Table 3.- Farm employment and wage rates, October 1, 1939, by classes

States and division	: Total : : employ- : : sent : : hired : : labor : : Oct. 1, 1939 :												Per month - :<											
---------------------------	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--

1/Day rate multiplied by 20.



reported sample can be expected to display its greatest efficiency. Tables 4 to 8 indicate that the average of reported figures are comparatively free of serious sampling errors. Although this does not guarantee that these averages reflect the actual level of wage rates paid in a given State, any tendency toward overstatement or understatement doubtless persists from inquiry to inquiry, as the schedules are sent to the same lists quarter after quarter and the information has been obtained in almost exactly the same way for many years. Whatever the bias or selectivity, it is inherent in the reported figures for any given State; therefore, it tends to be more or less constant. Unfortunately, no statistical analyses of the errors of the difference between the means of sample data for the same State on different dates are available at the present time. It is believed, however, that the estimating procedure followed in rounding daily rate indications to multiples of 5 cents and monthly rates to quarters of a dollar is, in most cases, sufficiently broad to guarantee that the seasonal and annual differences published for most States are significant.

Differences in the general level of wage rates as between States or regions on any one specific date are also believed to be significant in a majority of cases. A few analyses of errors of the difference between standard wage rates in Pennsylvania and Oklahoma are presented in table 9 of the Appendix, together with an analysis of the error of the difference between cotton-picking rates in South Carolina and Texas. The average of reported day rates without board, for example, was about \$2.30 in Pennsylvania on October 1, 1939, as compared with \$1.45 in Oklahoma, or a difference of 85 cents. Statistical computations indicate, however, that the probable error of this difference was only about 2 cents which suggests that if another set of samples with a much larger number of reports had been collected at the same time and in the same way in Pennsylvania and Oklahoma, the chances are one to one that the difference between the averages of these samples would not have been less than 83 or more than 87 cents. Furthermore, the chances are ninety-nine to one that the difference between the average of similar Pennsylvania and Oklahoma samples for that date would not have departed more than 2 cents either way from the 85 cents actually reported. Since the actual difference between the rates reported for these two States was many times that of the error of the difference, there is no question as to its statistical significance.

In the case of the cotton-picking rates, the actual difference between the average of rates reported for South Carolina and Texas was only about 3 cents per 100 pounds of seed cotton in 1939. Nevertheless, a sufficiently large number of reports was tabulated to restrict the probable error of this difference to a little over one-fifth of a cent. In consequence, the conclusion can safely be drawn that even small differences, between the level of piece-work rates for picking seed cotton in individual States, are reflected in the averages of reported rates.



### Cash Wage Rates Versus Real Wages

The information collected by the Agricultural Marketing Service regarding wage rates paid to hired farm labor cannot be interpreted as an approximation of the level of real wages of hired farm labor. The real wages of hired farm labor are determined by several factors, some of the more important of which are (1) the purchasing power of cash wages, (2) the value of the perquisites received in addition to cash paid farm workers, (3) the length of time the workers remain on the pay roll, and (4) their income from off-the-farm activities. The cash wage rate data collected, together with information assembled on prices of farm products and local market prices of articles bought for farm family maintenance, do furnish the type of material from which a fairly reliable determination of the changes in real wages over a period of time can be made. However, information is not now available on wage rates for piece work, other than for picking cotton, and on regional variations in the number of days worked, to permit reliable approximations to geographic differences in the real wages of people working on farms.

One indication of change in the purchasing power of cash wage rates can be obtained from the ratio of cash farm wage rates to the index of local market prices paid by farmers for commodities used for family maintenance. Table 10 of the Appendix shows the national series of cash wage rates per day and per month without board, the index of retail prices paid by farmers for family maintenance, and cash wage rates adjusted for changes in prices of these consumer goods, for the period 1910 to date.

Wage rates generally rise more slowly than the cost of living. Furthermore, changes in wage rates usually lag behind price changes, and especially so when there is a declining price trend. Real wages, as indicated by the adjusted farm wage rate series in figure 1 and table 10 for the period from 1910 to date, show a substantially different pattern for the monthly workers as compared with the daily workers. Although both series show relatively wide variations during the last three decades, there has been no evidence of a trend in the adjusted monthly rates whereas the trend in adjusted daily rates has been decidedly downward. Apparently the need for reliable year-round and crop-season laborers for the operation of the modern mechanized farm plant has helped to maintain the purchasing power of wage rates paid to men hired by the month without board whereas the pressure of the increased supply of available workers has tended to depress the real wage rates for day workers.

Both series of real wage rates reached a pre-war peak in 1913 and then declined sharply for the next 3 years under the pressure of advancing living costs. The real wage indicated for monthly workers then advanced irregularly until 1930, but did not equal the 1913 level until 1923. The real wage indicated for workers hired by the day, on the other hand, advanced sharply after 1916, passed the 1913 level and established its post-war peak in 1920 as war-time demands absorbed most of the floating labor supply. The real wage of day workers, however, dropped sharply in the following year, then staged a partial recovery from 1922 to 1924, and showed a very slight downward trend during the next 6 years. The purchasing power of both monthly



and daily wage rates without board dropped precipitately from 1931 to 1933, and remained at depression levels in 1934 but regained a part of these losses from 1935 to date.

These adjusted wage rate series do not furnish a precise indication of changes in the real wages of all farm laborers over time inasmuch as they apply merely to those receiving cash rates without board. In general, however, the difference between rates with and without board is a fairly reliable index of the cash value of board and lodging given workers hired on a "with board" basis. Nevertheless, no allowance is made for changes in the amount and real value of other perquisites furnished noncasual workers. In some cases these workers are provided housing facilities, fuel, space for a garden and/or food products from the farm and the use of the operator's tools and vehicles. Casual workers are quite frequently provided either shelter or transportation to and from work.

The real values of these miscellaneous items furnished hired workers is most difficult to determine currently. A comprehensive survey of the cash value of these and other perquisites has not been made since 1926.<sup>7/</sup> On the basis of changes in average prices received by farmers for sales of various commodities furnished as perquisites, the Bureau of Agricultural Economics<sup>8/</sup> has prepared annual estimates of the total cost to farmers of perquisites other than board and lodging during the period 1909 to 1938. Information as to the annual changes in the quantity of the various perquisites supplied hired workers is not available, however, to supply an indication of the effect of these quantitative factors on changes in the real wage rates.

No current indication of geographic differences in the amount and value of perquisites given hired farm workers is available other than the reported differences by States between rates with and without board. This indication does not provide a representative index of the total value of perquisites in California, Arizona, and other States where a large proportion of the workers employed in the harvesting of fruit and truck crops are hired on a piecework basis. The estimation of the real daily earnings of these pieceworkers is a complex problem that would necessitate comprehensive annual field surveys to determine the kind and quantity of perquisites given these people in addition to cash wages. Facilities now available to the Department for the current collection of statistics on farm labor do not even permit extensive annual mailed inquiries regarding cash wage rates paid pieceworkers and, with present budgetary limitations, current investigation of the non-monetary phase of their compensation is not possible.

---

<sup>7/</sup>See footnote 6/, p.4.

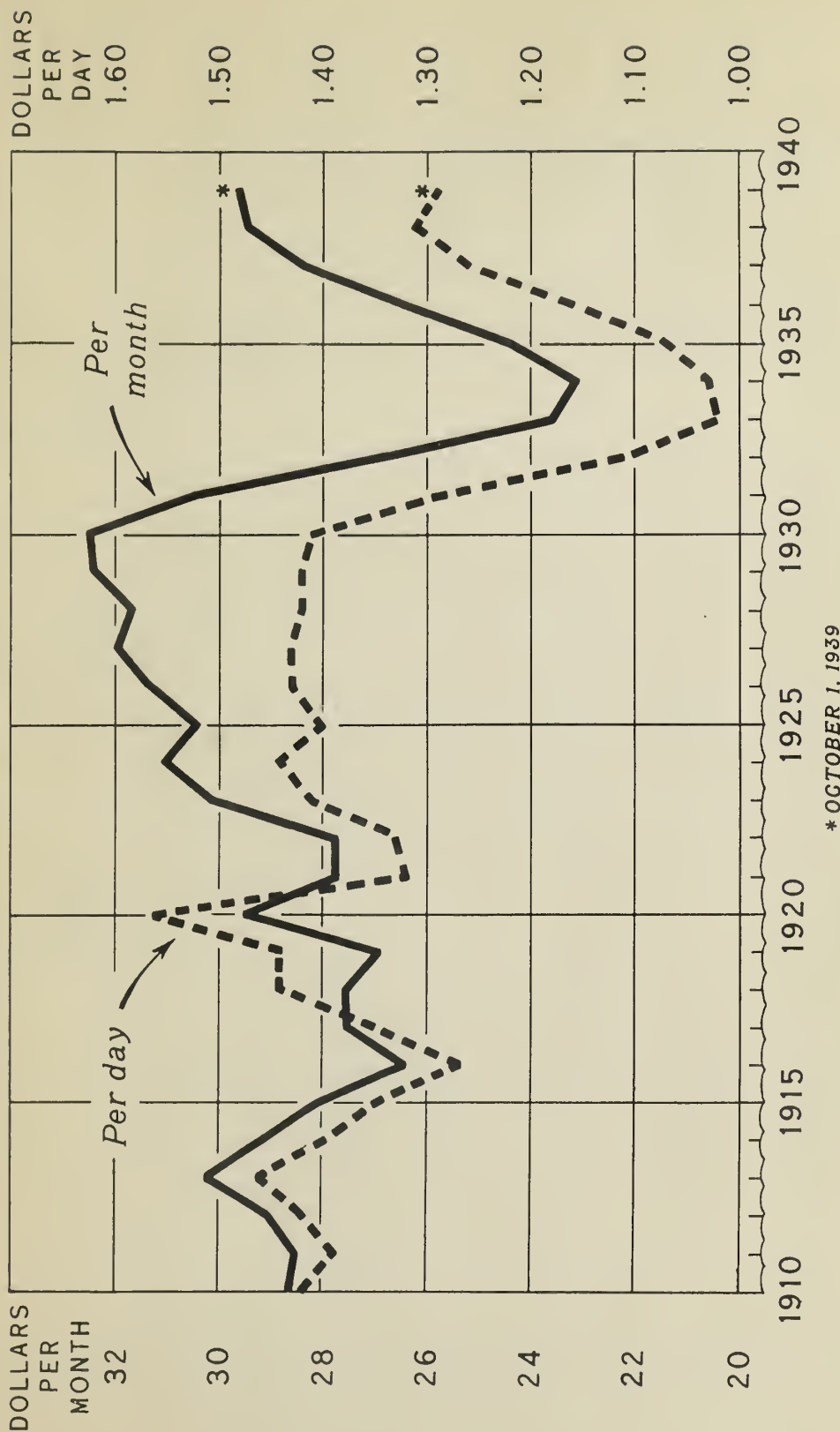
<sup>8/</sup>Grove, E.W., The Cost of Hired Farm Labor, 1909-38. Part II, Sect.1, Reports on Income Parity for Agriculture, p.12. U.S.Bur.Agr.Econ. Apr.1939 (Multilithed.)

Table 4.- Farm wage rates, by the month with board: Selected illustrations of size of sample, measures of dispersion, and probable errors

State, date and district	Number of reports	Average rate (arithmetic mean)	Standard deviation of reports	Coefficient of variability	Probable error of the average rate or mean	Relative probable error	Four times relative probable error
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Maine; Oct. 1, 1939, by:							
crop-rptg. dists:							
1	26	36.25	7.46	19.5	0.927	2.58	10.32
2	38	30.25	6.58	21.8	.720	2.38	9.52
3	34	30.15	4.45	14.8	.515	1.71	6.84
State	98	32.35	7.15	22.1	.487	1.51	6.04
N.Y.							
July 1, 1926	341	51.05	8.40	16.5	.306	.60	2.40
N.J.							
Oct. 1, 1925	62	46.94	9.10	19.4	.89	1.89	7.56
Jan. 1, 1926	57	45.53	10.10	22.2	.91	2.00	8.00
Apr. 1, 1926	41	48.78	12.45	19.0	1.36	2.80	11.20
July 1, 1926	50	50.50	10.35	20.5	.99	1.96	7.80
Pa; Oct. 1, 1939, by:							
crop-rptg. dists:							
1	92	26.10	6.11	23.4	.470	1.65	6.60
2	74	26.80	5.68	21.2	.445	1.66	6.64
3	37	27.30	7.58	27.8	.842	3.08	12.32
4	50	26.50	5.45	20.6	.520	1.96	7.84
5	88	25.10	5.26	21.0	.389	1.55	6.20
6	30	26.35	6.94	26.3	.854	3.24	12.96
7	36	25.40	5.05	19.9	.568	2.24	8.96
8	73	25.25	5.48	21.7	.432	1.71	6.84
9	103	29.70	7.17	24.1	.477	1.61	6.44
State	578	26.57	6.34	23.9	.178	.67	2.68
Ohio; Oct. 1, 1939, by:							
crop rptg. dists:							
1	69	29.20	5.62	19.2	.456	1.56	6.24
2	76	28.75	5.80	20.2	.449	1.56	6.24
3	79	27.95	4.60	16.5	.349	1.25	5.00
4	65	26.00	4.82	18.5	.403	1.55	6.20
5	57	26.30	4.25	16.2	.380	1.44	5.76
6	38	25.40	6.11	24.1	.669	2.63	10.52
7	38	26.95	6.73	25.0	.736	2.73	10.92
9	37	22.05	4.71	21.4	.522	2.37	9.48
State	480	27.00	5.57	20.6	.171	.63	2.52
Mich; Oct. 1, 1939, by:							
crop rptg. dists:							
1	27	29.02	4.68	16.1	.337	1.16	4.64
2	30	32.34	4.05	12.5	.498	1.54	6.16
5	46	30.18	4.22	14.0	.419	1.39	5.56
6	37	32.52	4.71	14.5	.523	1.61	6.43
7	50	27.80	5.67	20.4	.541	1.94	7.78
8	64	30.58	5.20	17.0	.438	1.47	5.73
9	58	31.28	6.98	21.3	.518	1.98	7.90
State	353	29.81	5.56	18.6	.200	.669	2.68

Continued

# FARM WAGE RATES, WITHOUT BOARD, ADJUSTED FOR CHANGES IN RURAL LIVING COSTS



U. S. DEPARTMENT OF AGRICULTURE

NEG. 108

AGRICULTURAL MARKETING SERVICE

FIGURE 1.- ADJUSTED MONTHLY FARM WAGE RATES SHOW NO DEFINITE SECULAR OR LONG-TIME TREND DURING THE PERIOD 1910 TO DATE. THE DOWNWARD TREND IN DAY RATES IS PROBABLY INFLUENCED BY THE INCREASING SUPPLY OF TRANSIENT WORKERS AVAILABLE FOR HIRE.



Table 4.- Farm wage rates, by the month with board: Selected illustrations of size of sample, measures of dispersion, and probable errors-Continued

State, date, and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the av- erage rate or mean	Rela- tive prob- able error	Four times relative prob- able error <sup>1/</sup>
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Va;							
Jan.1,1926	243	28.48	6.30	22.1	0.270	0.950	3.80
Apr.1,1926	226	29.41	6.39	21.7	.290	.940	3.76
July 1,1926	188	29.18	6.34	21.7	.310	1.060	4.24
N.C. Oct.1,1939, by crop rptg.dists:							
2	33	18.92	4.26	22.5	.500	2.64	10.56
3	51	17.66	4.20	23.8	.397	2.25	9.00
5	32	17.38	3.42	19.7	.407	2.34	9.36
8	37	17.34	5.60	32.3	.620	3.58	14.32
9	27	17.68	3.55	20.1	.461	2.61	10.44
State	245	17.23	4.60	26.6	.198	1.15	4.60
Ala; Oct.1,1939, by crop-rptg.dists:							
1	25	15.64	2.84	18.2	.383	2.45	9.80
2	34	15.50	2.54	16.3	.294	1.88	7.52
2a	28	14.82	3.25	22.0	.414	2.80	11.20
3	26	15.15	3.07	20.2	.406	2.67	10.68
6	37	11.32	1.96	17.3	.217	1.92	7.68
9	29	12.48	3.13	25.0	.302	3.14	12.56
State	233	14.17	3.58	25.3	.158	1.12	4.48
Okla; Oct.1,1939, by crop-rptg.dists:							
1	37	24.73	5.54	22.4	.614	2.48	9.92
2	49	24.80	4.79	19.3	.461	1.86	7.44
3	33	21.03	4.86	23.1	.525	2.50	10.00
4	54	20.97	4.60	21.9	.422	2.01	8.08
5	75	19.73	5.11	25.9	.398	2.02	8.04
6	25	17.50	3.61	20.6	.486	2.78	11.12
7	33	21.36	5.15	24.1	.605	2.83	11.32
8	51	18.68	3.78	20.2	.357	1.91	7.64
State	379	20.83	5.34	25.7	.185	.880	3.56
Utah:							
Oct.1, 1939	46	43.90	7.44	16.9	.740	1.69	6.76

<sup>1/</sup>The probabilities are 99 out of 100 that the average rate of a much larger sample collected in the same way and at the same time would not vary from this average rate by more than 4 times the probable error.



Table 5.- Farm wage rates, by the month, without board: Selected illustrations of size of sample, measures of dispersion, and probable errors

State, date, and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the aver- age rate or mean	Rela- tive prob- able error	Four times rela- tive probable error <sup>1/</sup>
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Maine; Oct.1,1939,by: crop-rptg.dists:							
2	28	47.30	5.11	10.8	0.651	1.38	5.52
3	25	49.60	7.06	14.2	.952	1.32	7.58
State	74	50.00	10.00	20.0	.784	1.57	6.28
N.Y:							
July 1, 1926	265	70.85	12.10	17.1	.504	.71	2.84
N.J:							
Oct. 1, 1925	57	72.72	10.55	14.5	.940	1.28	5.12
Jan. 1, 1926	54	70.18	13.75	19.6	1.260	1.79	7.16
Apr. 1, 1926	39	72.56	13.85	19.0	1.490	2.05	8.20
July 1, 1926	49	76.02	10.20	13.4	.980	1.28	5.12
Pa; Oct.1,1939, by crop-rptg.dists:							
1	58	42.05	11.18	26.6	.990	2.35	9.40
2	54	41.40	9.54	23.0	.877	2.12	8.48
3	28	41.95	10.12	24.1	1.290	3.08	12.32
4	30	41.50	7.76	18.7	.956	2.30	9.20
5	61	38.50	8.51	22.1	.735	1.91	7.64
6	25	42.40	8.96	21.1	1.209	2.85	11.40
7	27	38.55	8.59	22.3	1.115	2.89	11.56
8	49	38.05	7.34	19.3	.707	1.86	7.44
9	81	45.75	9.88	21.6	.740	1.62	6.48
State	413	41.44	9.64	23.3	.720	.77	3.02
Ohio; Oct.1,1939,by crop-rptg.dists:							
1	56	41.45	8.05	19.4	.726	1.75	7.00
2	44	42.15	6.78	16.1	.689	1.63	6.52
3	55	45.75	8.06	17.6	.733	1.60	6.40
4	53	37.90	6.77	17.9	.621	1.64	6.56
5	61	37.70	5.24	13.9	.453	1.20	4.80
6	26	37.90	8.23	21.7	1.088	2.87	11.48
7	35	38.55	8.06	20.9	.919	2.38	9.52
9	25	33.20	8.11	24.4	1.024	3.30	13.20
State	376	39.55	7.98	20.2	.277	.70	2.80
Mich; Oct.1,1939,by crop-rptg.dists:							
5	27	42.54	6.56	15.4	.851	2.00	8.00
7	37	43.80	8.27	19.3	.917	2.14	8.57
8	46	41.70	5.22	12.5	.519	1.24	4.85
9	35	45.78	10.06	22.0	1.147	2.50	10.02
State	224	43.36	8.16	18.8	.768	.85	3.39

Continued

Table 5.-Farm Wage rates, by the month, without board: Selected illustrations of size of sample, measures of dispersion, and probable errors-Continued

State, date, and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the average rate or mean	Rela- tive prob- able error	Four times rela- tive probable error <sup>1/</sup>
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Va:							
Jan.1, 1926	243	40.45	8.66	21.4	0.370	0.91	3.64
Apr.1, 1926	225	40.64	8.46	20.8	.380	.94	3.76
July 1, 1926	187	42.74	8.37	19.6	.410	.96	3.84
N.C.; Oct.1, 1939							
by crop-rptg.dists:							
2	28	26.93	6.09	22.5	.776	2.88	11.53
3	49	25.05	5.99	23.9	.577	2.30	9.22
5	29	26.81	4.94	18.4	.618	2.31	9.24
8	35	23.84	4.86	20.4	.554	2.32	9.28
9	32	25.78	4.67	18.1	.556	2.16	8.64
State	234	25.97	5.18	19.9	.228	.88	3.52
Ala.; Oct.1, 1939, by							
crop rptg.dists:							
2	35	22.40	3.72	16.6	.424	1.89	7.57
2-A	26	21.30	3.84	18.0	.508	2.38	9.54
3	25	22.30	3.93	17.6	.530	2.38	9.51
6	35	16.60	3.19	19.2	.364	2.19	8.77
9	30	17.20	4.35	24.4	.536	3.01	12.04
State	233	19.97	4.78	23.9	.211	1.06	4.24
Okla.; Oct.1, 1939, by							
crop-rptg.dists:							
1	27	36.67	7.07	19.3	.818	2.50	10.01
2	38	35.66	6.27	17.6	.687	1.93	7.70
3	35	29.64	5.77	19.5	.658	2.22	8.87
4	44	30.91	6.83	22.1	.694	2.25	8.99
5	74	29.46	6.69	22.7	.525	1.78	7.13
6	26	25.10	5.30	21.1	.701	2.79	11.18
7	41	31.22	6.35	20.3	.669	2.14	8.57
8	46	27.07	4.24	15.7	.422	1.56	6.24
State	346	30.20	7.03	23.3	.255	.84	3.38
Utah:							
Oct. 1, 1939	51	58.90	11.93	20.3	1.127	1.92	7.68

<sup>1/</sup>The probabilities are 99 out of 100 that the average rate of a much larger sample collected in the same way and at the same time would not vary from this average rate by more than 4 times the probable error.

Table 6.- Farm wage rates, by the day, with board: Selected illustrations of size of sample, measures of dispersion, and probable errors

State, date, and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the average rate or mean	Rela- tive prob- able error	Four times rela- tive probable error/
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Maine; Oct. 1, 1939, by crop-rptg. dists:							
2	37	1.64	0.41	25.2	0.046	2.80	11.20
3	43	1.65	.49	29.5	.050	3.04	12.16
State	101	1.72	.52	30.4	.035	2.04	8.16
N.J:							
Oct. 1, 1925	54	2.63	.55	20.9	.050	1.21	7.64
Jan. 1, 1926	40	2.59	.52	20.7	.055	2.10	8.40
Apr. 1, 1926	30	2.62	.60	23.2	.075	2.80	11.20
July 1, 1926	36	2.83	.56	19.6	.061	2.14	8.56
Pa.; Oct. 1, 1939, by crop-rptg. dists:							
1	78	1.62	.51	31.4	.039	2.40	9.60
2	64	1.63	.41	24.9	.034	2.10	8.40
3	27	1.74	.50	28.6	.065	3.71	14.84
4	49	1.50	.32	21.8	.031	2.09	8.36
5	94	1.66	.38	22.7	.026	1.58	6.32
6	33	1.72	.34	19.5	.039	2.29	9.16
7	30	1.66	.41	24.7	.050	3.04	12.16
8	83	1.89	.44	23.5	.033	1.74	6.96
9	102	1.98	.49	24.8	.033	1.66	6.64
State	560	1.74	.47	26.9	.013	.81	3.24
Ohio; Oct. 1, 1939, by crop-rptg. dists:							
1	71	1.92	.38	19.8	.030	1.58	6.32
2	66	1.60	.38	23.5	.031	1.95	7.80
3	76	1.75	.43	24.4	.033	1.89	7.56
4	79	1.80	.40	22.2	.030	1.68	6.72
5	55	1.59	.38	24.1	.031	1.93	7.72
6	40	1.49	.39	26.0	.041	2.78	11.12
7	47	1.73	.34	19.7	.034	1.94	7.76
8	35	1.24	.32	25.6	.036	2.91	11.64
9	56	1.30	.32	24.3	.028	2.19	8.76
State	525	1.66	.43	26.1	.012	.75	2.99
Mich.; Oct. 1, 1939, by crop-rptg. dists:							
2	33	1.54	.29	18.9	.035	2.30	9.20
5	53	1.75	.34	19.4	.031	1.79	7.16
6	35	1.79	.37	20.4	.042	2.33	9.32
7	50	1.73	.39	22.7	.037	2.17	8.68
8	79	1.81	.35	19.3	.027	1.47	5.88
9	59	1.80	.37	20.6	.033	1.81	7.24
State	370	1.72	.36	21.2	.013	.74	2.97

Continued

Table 6.- Farm wage rates, by the day, with board: Selected illustrations of size of sample, measures of dispersion, and probable errors-Continued

State, date, and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the average rate or mean	Rela- tive prob- able error	Four times rel- ative probable error <sup>1/</sup>
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Va.:							
Jan. 1, 1926	300	1.54	0.38	24.4	0.015	0.94	3.76
Apr. 1, 1926	267	1.50	.33	22.1	.014	.91	3.64
July 1, 1926	195	1.55	.37	23.9	.018	1.15	4.60
N.C.; Oct. 1, 1939, by crop-rptg. dists:							
1	42	1.07	.17	16.0	.018	1.60	6.38
2	38	1.05	.20	19.6	.022	2.13	8.52
3	53	.92	.26	28.6	.024	2.64	10.56
4	39	1.01	.23	22.5	.025	2.43	9.73
5	44	.98	.30	30.0	.030	3.06	12.23
8	46	.82	.16	19.9	.016	1.98	7.92
9	37	.89	.21	23.5	.023	2.58	10.32
State	319	.96	.22	22.8	.008	.86	3.44
Ala.; Oct. 1, 1939, by crop-rptg. dists:							
1	28	.80	.19	24.1	.024	3.07	12.28
2	30	.76	.18	24.1	.023	2.96	11.84
2a	26	.72	.22	21.8	.016	2.88	11.52
3	26	.79	.14	17.1	.018	2.26	9.04
6	39	.55	.11	20.1	.012	2.18	8.72
9	25	.59	.16	28.1	.022	3.79	15.16
State	243	.70	.20	29.3	.009	1.30	5.20
Okla.; Oct. 1, 1939, by crop-rptg. dists:							
1	54	1.43	.30	21.0	.028	1.93	7.72
2	77	1.42	.35	24.5	.027	1.88	7.53
3	41	1.01	.21	20.7	.022	2.17	8.69
4	70	1.22	.25	20.8	.021	1.67	6.69
5	89	1.04	.28	27.2	.020	1.94	7.76
6	34	.85	.14	16.0	.016	1.85	7.39
7	51	1.13	.21	18.7	.020	1.77	7.08
8	60	.96	.18	18.4	.015	1.60	6.40
State	497	1.14	.32	28.2	.010	.85	3.42
Utah:							
Oct. 1, 1939	60	2.07	.30	14.5	.026	1.25	5.00

<sup>1/</sup>The probabilities are 99 out of 100 that the average rate of a much larger sample collected in the same way and at the same time would not vary from this average rate by more than 4 times the probable error.



Table 7.- Farm wage rates, by the day, without board: Selected illustrations of size of sample, measures of dispersion, and probable errors

State, date, and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the average rate of mean	Rela- tive prob- able error	Four times rela- tive probable error/
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Maine; Oct. 1, 1939, by crop-rptg. dists:							
2	39	2.21	0.41	18.5	0.044	2.00	8.00
3	50	2.28	.34	15.0	.032	1.43	5.72
State	110	2.34	.49	20.9	.071	1.34	5.36
N.Y.:							
July 1, 1926	280	3.80	.64	16.8	.026	.68	2.72
N.J.:							
Oct. 1, 1925	75	3.61	.63	17.4	.049	1.35	5.40
Jan. 1, 1926	52	3.52	.58	16.3	.054	1.53	6.12
Apr. 1, 1926	46	3.43	.67	19.2	.066	1.89	7.56
July 1, 1926	50	3.66	.50	13.5	.047	1.28	5.12
Pa.; Oct. 1, 1939, by crop-rptg. dists:							
1	74	2.19	.53	24.1	.041	1.89	7.56
2	53	2.33	.64	27.0	.059	2.50	10.00
3	27	2.29	.58	25.5	.076	3.31	13.24
4	32	2.04	.39	18.9	.060	2.93	11.72
5	76	2.18	.42	19.4	.033	1.50	6.00
6	34	2.24	.40	17.6	.046	2.04	8.16
7	28	2.01	.39	19.4	.050	2.47	9.88
8	68	2.36	.42	17.7	.034	1.45	5.80
9	100	2.26	.41	16.0	.028	1.24	4.96
State	492	2.29	.53	23.0	.016	.70	2.80
Ohio; Oct. 1, 1939, by crop-rptg. dists:							
1	67	2.41	.44	18.3	.036	1.51	6.04
2	64	2.32	.41	17.9	.035	1.51	6.04
3	62	2.38	.40	16.7	.034	1.44	5.76
4	67	2.26	.40	17.6	.033	1.45	5.80
5	70	2.07	.48	23.3	.039	1.79	7.16
6	34	2.03	.44	21.9	.052	2.54	10.16
7	47	2.18	.36	16.6	.036	1.63	6.52
8	36	1.65	.40	24.3	.045	2.73	10.92
9	41	1.72	.29	16.9	.031	1.78	7.12
State	488	2.16	.48	20.0	.014	.67	2.68
Mich.; Oct. 1, 1939, by crop-rptg. dists:							
2	28	2.04	.34	16.6	.043	2.11	8.44
5	39	2.19	.36	17.3	.039	1.79	7.16
7	47	2.21	.41	18.5	.040	1.82	7.28
8	56	2.33	.39	16.7	.035	1.51	6.04
9	42	2.26	.39	17.2	.040	1.79	7.16
State	290	2.24	.44	19.5	.017	.77	3.10

Continued



Table 7.- Farm wage rates, by the day, without board: Selected illustrations of size of sample, measures of dispersion, and probable errors-Continued

State, date and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Probable error of the average rate or mean	Rela- tive prob- able error	Four times rela- tive probable error <sup>1/</sup>
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
Va.:							
Jan. 1, 1926	300	2.01	0.434	21.5	0.017	0.84	3.36
Apr. 1, 1926	267	2.00	.409	20.5	.017	.85	3.40
July 1, 1926	195	2.55	.446	17.5	.022	.84	3.36
N.C.; Oct. 1, 1939, by crop-rptg. dists:							
1	37	1.36	.185	13.6	.020	1.50	6.01
2	31	1.37	.286	20.8	.035	2.53	10.12
3	62	1.17	.316	27.0	.027	2.31	9.24
4	46	1.27	.268	21.2	.027	2.13	8.52
5	33	1.29	.251	19.4	.029	2.24	8.96
6	38	1.12	.174	15.5	.019	1.69	6.76
8	50	1.06	.164	21.0	.016	1.46	5.84
9	56	1.03	.180	17.5	.016	1.57	6.28
State	353	1.20	.267	22.2	.010	.80	3.20
Ala.; Oct. 1, 1939, by crop-rptg. dists:							
1	29	1.08	.270	24.9	.034	3.10	12.40
2	45	1.04	.125	18.8	.020	1.90	7.60
2-A	31	1.06	.140	13.2	.017	1.60	6.40
3	32	1.07	.120	11.3	.014	1.30	5.20
5	41	.78	.193	24.7	.020	2.59	10.36
8	25	.81	.121	15.0	.016	2.02	8.08
9	28	.84	.142	17.6	.019	2.25	9.00
State	286	.94	.222	24.2	.009	.97	3.88
Okla.; Oct. 1, 1939, by crop-rptg. dists:							
1	32	1.88	.359	19.1	.043	2.28	9.11
2	56	1.82	.419	23.0	.038	2.07	8.28
3	40	1.40	.300	21.5	.032	2.29	9.16
4	64	1.56	.325	20.9	.027	2.61	10.45
5	101	1.40	.352	25.1	.024	1.69	6.75
6	37	1.11	.129	17.0	.021	1.88	7.52
7	79	1.53	.303	19.3	.023	1.51	6.03
8	34	1.23	.197	16.0	.014	1.18	4.72
9	25	1.06	.245	23.2	.033	3.13	12.52
State	518	1.45	.327	22.7	.011	.79	3.17
Utah; Oct. 1, 1939, by crop-rptg. dists:							
1	34	2.64	.408	15.5	.047	1.79	7.16
5	25	2.36	.381	14.1	.051	2.18	8.72
State	83	2.54	.429	16.9	.032	1.25	5.00

<sup>1/</sup>The probabilities are 99 out of 100 that the average rate of a much larger sample collected in the same way and at the same time would not vary from this average rate by more than 4 times the probable error.

## Piece-work wage rates paid hired workers in 1934

State	For picking apples : per bu.	For picking peaches : per bu.	For picking pears : per bu.	For picking grapes : 100 lb.	For picking up potatoes : per bu.	For cutting and shocking corn : per acre	For husking corn : From standing stalk : per bu.	For husking corn : From shock : per bu.
	Cents	Cents	Cents	Cents	Cents	Dollars	Cents	Cents
Maine	6.5	-	-	-	3.4	-	-	-
N.H.	6.5	-	-	-	3.3	-	-	-
Vt.	5.0	-	-	-	3.4	-	-	-
Mass.	6.7	-	6.0	-	3.6	-	-	-
R.I.	6.7	-	6.0	-	3.5	-	-	-
Conn.	5.8	-	6.0	17	3.6	2.30	5.0	5.6
N.Y.	5.1	5.9	5.1	17	3.2	1.85	5.0	5.3
N.J.	4.7	4.5	5.0	17	3.2	1.90	4.0	5.1
Pa.	4.8	4.6	4.5	17	3.3	1.80	4.0	4.2
Ohio	4.9	5.6	6.0	16	3.5	1.85	4.1	5.1
Ind.	5.1	5.4	5.1	13	3.8	1.70	3.8	5.1
Ill.	4.8	4.9	4.3	18	4.3	1.56	3.8	4.4
Mich.	4.5	4.9	4.6	13	2.6	1.50	3.9	4.4
Wis.	5.5	-	-	-	2.4	1.60	4.0	4.7
Minn.	5.0	-	-	-	3.5	1.60	4.3	5.2
Iowa	4.7	5.7	4.8	17	3.1	1.55	3.7	4.1
Mo.	4.4	4.9	4.9	17	3.0	1.20	3.4	4.5
N.Dak.	-	-	-	-	4.0	-	-	-
S.Dak.	-	-	-	-	3.8	1.30	4.6	4.4
Nebr.	5.0	4.0	5.0	17	3.5	1.25	4.0	5.1
Kans.	4.5	3.6	3.8	17	4.1	1.25	4.3	4.7
Del.	4.4	4.8	4.5	16	3.5	1.90	3.3	4.6
Md.	4.4	4.3	4.2	16	3.7	1.90	3.5	3.8
Va.	4.2	4.6	5.0	15	3.4	1.50	4.1	4.9
W.Va.	4.3	5.0	5.4	17	3.3	1.50	4.5	4.5
N.C.	4.7	3.9	4.4	15	3.5	1.25	4.3	4.2
S.C.	5.0	4.6	4.8	15	3.5	1.00	3.9	4.1
Ga.	4.7	3.8	4.3	15	3.6	1.10	3.8	4.3
Fla.	-	5.5	5.2	15	3.7	1.35	4.5	4.5
Ky.	4.2	5.0	3.3	17	4.6	1.30	3.5	3.7
Tenn.	4.4	6.1	4.9	17	4.0	1.25	3.4	4.0
Ala.	4.7	5.4	4.5	15	3.5	1.10	3.5	4.1
Miss.	4.7	5.0	5.0	-	3.0	1.15	3.2	3.0
Ark.	4.1	4.0	4.8	16	4.4	.95	3.5	3.5
La.	-	5.0	4.5	-	4.1	1.15	3.5	3.5
Okla.	5.2	4.9	6.0	15	4.3	1.25	4.0	3.4
Tex.	5.2	4.5	5.0	15	3.6	1.15	4.0	3.7
Mont.	5.0	-	-	-	3.1	-	-	-
Idaho	4.0	4.1	3.9	18	2.7	1.80	4.3	4.0
Wyo.	-	-	-	-	3.7	-	-	-
Colo.	4.0	3.8	4.1	-	3.6	1.65	4.8	4.7
N.Mex.	4.0	3.8	3.8	15	4.2	1.55	4.0	4.0
Ariz.	4.0	5.5	5.0	15	4.5	-	-	-
Utah	5.0	6.0	3.8	15	4.2	-	-	-
Nev.	-	5.3	5.0	-	4.5	-	-	-
Wash.	3.2	4.4	3.7	17	2.8	-	-	-
Oreg.	3.4	5.0	3.8	16	2.8	1.95	4.0	3.3
Calif.	4.4	5.6	5.7	12	3.0	2.40	5.0	4.0
U.S.	4.2	5.0	4.9	12.5	3.1	1.46	3.8	4.3

Crop reporters were circularized for the first time on February 1 for information regarding piecework wage rates paid hired workers on many crops. This inquiry was inaugurated in response to a growing demand for rate data on specific tasks which the general information collected during past years does not supply. The data collected on February 1 apply to the 1934 crop season and cover chiefly the harvesting operations for crops other than cotton. Cotton-picking rates have been gathered annually since 1924 and were published for the entire period in November.

March 1935

## CROPS AND MARKETS

Exhibit A

## Threshing and combine harvesting costs in 1934

State	Custom threshing rates			Owned or partnership threshing costs			Combine harvester-thresher costs 1/	
	For	For	For	For	For	For	Combines	Hired or
	threshing	threshing	threshing	threshing	threshing	threshing	growers	owned by
	wheat	oats	barley	wheat	oats	barley	average	custom
	per bu.	per bu.	per bu.	per bu.	per bu.	per bu.	cost	charge
							per acre	per acre
	Cents	Cents	Cents	Cents	Cents	Cents	Dollars	Dollars
Maine	8.2	8.2	8.0	8.0	8.2	8.0	-	-
N.H.	-	-	-	-	-	-	-	-
Vt.	-	6.0	6.5	-	6.0	6.5	-	-
Mass.	-	-	-	-	-	-	-	-
R.I.	-	-	-	-	-	-	-	-
Conn.	-	-	-	-	-	-	-	-
N.Eng.	-	7.6	7.2	-	7.6	7.2	-	-
N.Y.	5.7	5.0	5.5	5.4	4.8	5.1	-	-
N.J.	9.9	7.0	-	7.0	5.1	-	-	-
Pa.	5.8	4.2	5.0	5.8	4.3	4.8	-	-
M.Atl.	6.0	4.7	5.4	5.8	4.6	5.0	-	-
Ohio	5.5	3.6	4.2	4.9	3.2	3.8	-	-
Ind.	5.1	3.2	4.5	5.4	3.0	4.2	1.70	2.30
Ill.	5.2	2.7	3.8	5.2	2.8	3.4	1.75	2.20
Mich.	4.8	3.5	4.2	5.8	4.1	5.2	-	-
Wis.	4.6	3.2	3.5	4.2	2.8	3.1	-	-
E.N.Cent.	5.2	3.2	3.6	5.2	3.1	3.4	1.73	2.24
Minn.	5.2	3.1	3.6	5.0	3.0	3.3	1.60	2.30
Iowa	4.8	2.5	3.1	4.5	2.4	2.9	1.70	2.25
Mo.	5.5	3.5	4.9	5.8	3.6	4.5	1.35	1.90
N.Dak.	8.7	5.5	6.6	6.5	4.5	5.2	1.30	1.60
S.Dak.	5.4	3.1	3.6	5.8	3.3	3.8	1.00	1.50
Nebr.	5.0	3.2	4.0	5.0	3.0	3.0	1.10	1.55
Kans.	6.0	3.8	4.8	5.3	3.4	3.6	1.00	1.50
W.N.Cent.	6.1	3.1	4.1	5.5	3.0	3.6	1.07	1.55
Del.	6.8	-	-	6.1	-	-	-	-
Md.	5.7	4.7	4.6	5.4	4.5	4.0	-	-
Va.	6.7	5.0	5.8	6.9	5.6	5.2	-	-
W.Va.	6.0	5.0	6.0	6.0	5.0	5.0	-	-
N.C.	9.1	6.9	7.0	7.7	6.3	6.1	-	-
S.C.	9.9	7.1	-	9.0	7.1	-	-	-
Ga.	9.9	8.0	-	9.6	7.3	-	-	-
Fla.	-	-	-	-	-	-	-	-
S.Atl.	6.9	6.8	5.8	6.6	6.6	5.0	-	-
Ky.	8.7	6.0	7.5	8.3	6.3	7.5	-	-
Tenn.	8.4	5.6	6.8	8.5	6.3	7.2	-	-
Ala.	9.9	7.0	-	9.6	8.0	-	-	-
Miss.	-	9.3	-	-	8.0	-	-	-
E.S.Cent.	8.6	6.8	7.1	8.4	7.2	7.3	-	-
Ark.	7.4	4.9	-	7.4	5.2	-	-	-
La.	-	6.0	-	-	6.0	-	-	-
Okla.	7.5	4.2	6.0	6.4	3.8	4.5	1.05	1.60
Tex.	8.5	5.2	6.5	8.0	4.5	6.0	1.10	1.50
W.S.Cent.	7.9	4.8	6.3	7.1	4.3	5.5	1.08	1.55
Mont.	6.2	4.4	4.5	6.0	4.0	4.4	1.05	1.60
Idaho	5.5	4.4	4.6	5.0	4.0	4.0	-	-
Wyo.	6.0	4.0	4.0	6.0	4.0	4.0	1.30	2.00
Colo.	6.4	5.3	5.3	6.0	5.1	5.0	-	-
N.Mex.	6.5	-	4.8	7.0	-	7.0	-	-
Ariz.	8.0	-	6.0	7.0	-	7.0	-	-
Utah	7.8	6.1	6.5	7.6	6.3	6.6	-	-
Nev.	7.4	6.7	5.3	6.3	5.5	5.0	-	-
Mount.	6.1	4.6	4.9	5.8	4.3	4.7	1.10	1.68
Wash.	6.7	4.5	5.5	7.2	4.2	5.5	1.80	2.40
Oreg.	5.7	4.3	4.8	6.4	5.0	5.1	1.70	2.35
Calif.	6.7	5.0	5.5	7.2	5.0	5.5	1.45	2.20
Pac.	6.5	4.5	5.4	7.0	4.6	5.5	1.61	2.30
U.S.	6.3	3.8	4.6	6.0	3.6	4.3	1.26	1.82

1/Does not include cost of hauling grain from combine.

Table 8.- Piece-work wage rates: Prices paid for picking 100 pounds of seed cotton: Selected illustrations of size of sample, measures of dispersion, and probable errors, 1939

State, date and district	Number of re- ports	Average rate (arith- metic mean)	Stand- ard devia- tion of reports	Coef- ficient of varia- bility	Prob- able error of the average rate or mean	Rela- tive prob- able error	Four times rela- tive prob- able error <sup>1/</sup>
		Dol.	Dol.	Pct.	Dol.	Pct.	Pct.
South Carolina:							
Nov. 1, 1939, by crop-rptg.dists:							
1	190	0.522	0.053	10.1	0.003	0.50	2.00
2	59	.514	.038	7.4	.003	.65	2.60
3	65	.534	.077	13.7	.006	1.15	4.60
4	109	.507	.045	8.8	.003	.57	2.28
5	85	.511	.037	7.3	.003	.53	2.12
8	34	.516	.028	5.3	.003	.62	2.48
State	542	.522	.057	10.9	.002	.32	1.28
Texas:							
Nov. 1, 1939, by crop-rptg.dists:							
1N	27	.463	.072	15.4	.009	2.00	8.00
1S	109	.482	.098	20.4	.006	1.32	5.28
2	255	.538	.110	20.5	.005	.87	3.48
3	84	.597	.038	16.4	.007	1.20	4.80
4	424	.554	.068	12.3	.002	.40	1.60
5	280	.527	.068	12.9	.003	.52	2.08
7	46	.568	.084	14.9	.008	1.48	5.92
8	225	.540	.070	13.0	.003	.60	2.40
9	60	.596	.070	11.7	.006	1.00	4.00
10	36	.550	.085	15.4	.010	1.70	6.80
State	1,560	.549	.084	15.4	.001	.26	1.04

<sup>1/</sup>The probabilities are 99 out of 100 that the average rate of a much larger sample collected in the same way and at the same time would not vary from this average rate by more than 4 times the probable error.



Table 9.-Farm wage rates and cotton-picking rates: Selected illustrations  
of statistical measures of difference and probable errors  
of difference in unpaired samples

State, date, and district	Number of reports		Average rate		Dif- fer- ence in aver- age rate	Standard deviation		Prob- able error of dif- fer- ence	Four times prob- able error of differ- ence/
	N <sub>1</sub>	N <sub>2</sub>	M <sub>1</sub>	M <sub>2</sub>		1	2		
By the month, with board:			Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Pa.(1) and Okla.(2):									
Oct. 1, 1939	578	379	26.57	20.83	5.74	6.34	5.34	.257	1.03
Pa. Crop-rptg. dists.:									
1(1) and 9(2)									
Oct. 1, 1939	92	103	26.10	29.70	3.60	6.11	7.17	.642	2.57
Okla. Crop-rptg. dists.:									
1(1) and 8(2):									
Oct. 1, 1939	37	51	24.73	18.68	6.05	5.54	3.73	.710	2.84
By the month, without board:									
Pa.(1) and Okla.(2):									
Oct. 1, 1939	413	346	41.44	30.20	11.24	9.64	7.03	.409	1.64
Pa. Crop-rptg. dists.:									
1(1) and 9(2)									
Oct. 1, 1939	58	31	42.05	45.75	3.70	11.18	9.88	1.24	4.96
Okla. Crop-rptg. dists.:									
1(1) and 8(2):									
Oct. 1, 1939	27	46	35.67	27.07	9.60	7.07	4.24	1.01	4.04
By the day, with board:									
Pa.(1) and Okla.(2):									
Oct. 1, 1939	560	497	1.72	1.14	.58	.466	.322	.016	.064
Pa. Crop-rptg. dists.:									
1(1) and 9(2):									
Oct. 1, 1939	78	102	1.62	1.98	.36	.507	.491	.051	.204
Okla. Crop-rptg. dists.:									
1(1) and 8(2):									
Oct. 1, 1939	54	60	1.43	.96	.47	.300	.176	.032	.128
By the day, without board:									
Pa.(1) and Okla.(2):									
Oct. 1, 1939	492	518	2.29	1.45	.84	.526	.337	.020	.080
Pa. Crop-rptg. dists.:									
1(1) and 9(2):									
Oct. 1, 1939	74	100	2.19	2.26	.07	.528	.409	.050	.200
Okla. Crop-rptg. dists.:									
1(1) and 9(2):									
Oct. 1, 1939	32	25	1.88	.98	.90	.359	.245	.054	.216

Continued

Table 9.- Farm wage rates and cotton-picking rates: Selected illustrations of statistical measures of difference and probable errors of difference in unpaired sample-Continued

State, date, and district	Number of reports		Average rate		Dif- fer- ence in aver- age rate	Standard deviation		Prob- able error of dif- fer- ence	Four times prob- able error of differ- ence <sup>1/</sup>
	N <sub>1</sub>	N <sub>2</sub>	M <sub>1</sub>	M <sub>2</sub>		1	2		
			Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
<u>Cotton picking rates:</u>									
(per 100 lbs. seed cotton)									
S.C.(1) and Texas (2) Nov. 1, 1939	542	1,560	0.522	0.549	0.027	0.057	0.084	0.002	0.008
S.C: Crop-rptg. dists. 1(1) and 8(2) Nov. 1, 1939	190	34	.522	.516	.006	.053	.028	.004	.016
Texas: Crop-rptg. dists. 1-5(1) and 9(2) Nov. 1, 1939	109	60	.482	.596	.114	.098	.070	.009	.036

<sup>1/</sup>The probabilities are 99 out of 100 that the difference in average rate of a much larger sample collected in the same way and at the same time would not vary from this difference in the average rate by more than 4 times the probable error.

Table 10.- Actual farm wage rates per month and per day without board, index of prices paid by farmers for commodities used for family maintenance, and adjusted farm wage rates, United States, 1910-39

Year	Actual wage rates		Prices paid by farmers for living costs		Wage rates adjusted for changes in rural living costs	
	Per month		Per day		(1910-14 = 100)	
	Dollars		Dollars		Percent	
	Dollars	Dollars	Percent	Dollars	Dollars	
1910.....	28.08	1.39	98	28.65	1.42	
1911.....	28.54	1.39	100	28.54	1.39	
1912.....	29.34	1.43	101	29.05	1.42	
1913.....	30.21	1.46	100	30.21	1.46	
1914.....	29.74	1.43	102	29.13	1.40	
1915.....	30.06	1.44	107	28.09	1.35	
1916.....	32.84	1.58	124	26.48	1.27	
1917.....	40.52	1.98	147	27.56	1.35	
1918.....	42.80	2.54	177	27.57	1.44	
1919.....	56.63	3.03	210	26.97	1.44	
1920.....	65.40	3.46	222	27.46	1.56	
1921.....	44.67	2.12	161	27.75	1.32	
1922.....	43.33	2.07	156	27.73	1.33	
1923.....	42.25	2.25	160	30.16	1.41	
1924.....	49.32	2.29	159	31.02	1.44	
1925.....	49.90	2.29	164	30.43	1.40	
1926.....	50.83	2.31	162	31.38	1.43	
1927.....	50.85	2.28	159	31.98	1.43	
1928.....	50.72	2.27	160	31.70	1.42	
1929.....	51.22	2.25	158	32.42	1.42	
1930.....	48.10	2.08	148	32.50	1.41	
1931.....	32.38	1.62	126	30.46	1.29	
1932.....	28.88	1.20	108	26.74	1.11	
1933.....	25.67	1.11	109	23.55	1.02	
1934.....	28.19	1.26	122	23.11	1.03	
1935.....	30.24	1.33	124	24.39	1.07	
1936.....	32.28	1.42	122	26.46	1.16	
1937.....	36.32	1.61	128	28.38	1.26	
1938.....	35.63	1.58	121	29.45	1.31	
1939 1/.....	35.13	1.57	122	29.61	1.29	

1/October 1, 1939.

Table 11.- Farm Wage rates and index numbers, 1866-1909  
(1910-1914 = 100)

Year	Average yearly farm wage 1/				Weighted average wage rate per month2/	Index numbers of farm wages
	Per month-		Per day-			
	With board	With- out board	With board	With- out board		
	Dol.	Dol.	Dol.	Dol.		
1866 3/.....	10.09	15.50	0.64	0.90	13.14	55
1869.....	9.97	15.50	.63	.87	12.93	54
1874 or 1875.....	11.16	17.10	.68	.94	14.19	59
1877 or 1879 4/...	10.86	16.79	.61	.84	13.34	56
1879 or 1880.....	11.70	17.53	.64	.89	14.14	59
1880 or 1881.....	12.32	18.52	.67	.92	14.82	62
1881 or 1882.....	12.88	19.11	.70	.97	15.48	65
1884 or 1885.....	13.08	19.22	.71	.96	15.58	65
1887 or 1888.....	13.29	19.67	.72	.98	15.87	66
1889 or 1890.....	13.29	19.45	.72	.97	15.79	66
1891 or 1892.....	13.43	20.02	.73	.98	16.06	67
1893.....	13.85	19.97	.72	.92	15.93	67
1894.....	12.70	18.57	.65	.84	14.60	61
1895.....	12.75	18.74	.65	.85	14.69	62
1898.....	13.29	19.16	.71	.94	15.58	65
1899.....	13.90	19.97	.75	.99	16.34	68
1902.....	15.51	22.12	.83	1.09	18.12	76
1906.....	18.73	26.19	1.03	1.32	21.92	92
1909.....	20.48	28.09	1.04	1.31	23.00	96

<sup>1/</sup>Yearly averages are from reports by crop reporters, giving average wages for the year in their localities.

<sup>2/</sup>This column has significance only as an essential step in computing the wage index.

<sup>3/</sup>Years 1866 to 1873 in gold.

<sup>4/</sup>1877 or 1878, 1878 or 1879 (combined).



EXHIBIT "B"  
UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics

Washington, D. C.  
January 13, 1939

FARM WAGE RATES DOWN SHARPLY:  
LABOR SUPPLY UP, DEMAND LOWER

Wage rates paid to hired farm workers dropped sharply during the last quarter of 1938 reflecting a sizable increase in the supply of workers available for hire in rural areas and a seasonal downturn in the demand for farm help, the Bureau of Agricultural Economics reported today.

Farm wage rates averaged 117 percent of pre-war on January 1 as compared with 126 on October 1 and 118 on January 1, 1938. This index, which recently has been revised by the Bureau, was 7 points higher, however, than on January 1, 1937.

Wage rates declined substantially from Wisconsin west to Idaho during the 3 months ended January 1, 1939, but lower rates prevailed in nearly all sections of the country. During the last 3 months of 1938, the index declined 9 points, as compared with 16 points during the same period in 1937 and an average downturn of 7 points in the last quarter of the preceding 5 years. Rates per day without board on January 1 of this year ranged from \$2.75 in Rhode Island and California to 80 cents in South Carolina. The average was \$1.53 for the country as a whole.

The supply of workers available for hire in agricultural communities increased a little from October 1, 1938 to January 1 of this year, although data through November indicate no change in employment in manufacturing industries. Some seasonal slackening in industrial employment probably occurred, however, in December. Reports received from crop correspondents indicated that the rural labor supply was 94.8 percent of normal on January 1, compared with 91.6 percent of normal 3 months earlier. This increase was only about one-third as large as the increase during the last quarter of 1937 when

industrial employment dropped sharply. The January 1 supply of labor available for farmwork was slightly larger than a year ago.

#### Labor Demand Lower

The demand for farm labor, however, was down slightly on the first of this month as compared with January 1, 1938. This was primarily the result of the lower level of prices received by farmers. Reports from crop correspondents indicated that the demand for labor averaged only 79.2 percent of normal on January 1, or 1.9 points less than on October 1 and eight-tenths of a point under a year ago. The drop in demand under the level of a year ago, however, was accompanied by a 6-point decline in local market prices of farm products during 1938. Prices received by farmers for agricultural commodities averaged 102 percent of pre-war on January 15 of last year but were only 96 percent of pre-war on December 15, 1938, the latest date for which this information is available.

The slight increase in supply and the drop in the demand for labor from October 1 to January 1 resulted in a rather sharp upturn in the supply-demand ratio. Expressing supply as a percentage of the demand, the ratio on the first of this month was 119.7 percent of normal, compared with 112.3 on October 1, 1938, and 115.6 on January 1, 1938. In the past, these ratios have varied inversely with employment in non-agricultural industries. Comparisons are based upon the Bureau's recently revised supply and demand series and supply-demand ratios.

#### Farm Employment Drops Sharply

Total employment on farms in the United States was estimated at 8,767,000 persons on January 1, the Bureau also reported today. This was 27 percent less than on October 1, and about the same as a year ago. These data bring to date series of monthly agricultural employment statistics published recently by the National Research Project of the Works Progress Administration. (Copies of this report, "Trends in Employment in Agriculture, 1909-36" may be obtained upon request to the Bureau of Agricultural Economics.)

Continued on page 6

UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics

FARM WAGE RATES AND RELATED DATA, JANUARY 1, 1939, WITH COMPARISONS

	Annual average 1910-14	Oct. 1, 1937	Jan. 1, 1938	Oct. 1, 1938	Jan. 1, 1939
FARM WAGE INDEX <u>1/</u>	100	134	118	126	117
FARM WAGE RATES: <u>1/</u>					
Per month, with board	\$22.09	\$29.84	\$25.18	\$28.25	\$24.86
Per month, without board	29.18	33.11	34.70	36.09	34.92
Per day, with board	1.16	1.46	1.22	1.36	1.20
Per day, without board	1.42	1.73	1.55	1.59	1.53
SUPPLY OF AND DEMAND FOR FARM LABOR <u>1/</u> (Percentage of normal)					
Supply	--	81.3	92.5	91.6	94.8
Demand	--	91.9	80.0	81.1	79.2
Supply as a percentage of demand	--	88.5	115.6	112.9	119.7
FARM EMPLOYMENT <u>2/</u> (Thousands of persons)					
Family labor	--	9,133	7,051	8,896	7,138
Hired labor	--	3,208	1,711	3,158	1,629
Total	--	12,341	8,762	12,054	8,767
RELATED INDEXES					
Prices received by farmers <u>3/</u>	100	112	102	95	<u>4/</u> 96
Ratio of prices received to farm wage rates <u>1/</u>	100	84	84	75	82
Industrial wage rates <u>5/</u>	--	214	204	212	<u>7/</u> 205
Industrial employment <u>6/</u>	--	107	88	90	<u>7/</u> 95
Industrial pay-rolls <u>6/</u>	--	104	75	84	<u>7/</u> 90

1/ Revised for dates prior to Jan. 1, 1939.

2/ Estimates of actual employment are shown in place of number of persons employed per 100 crop reporting farms, beginning with this issue.

3/ As of the 15th of the month.

4/ December 15, 1938, latest date available.

5/ Average weekly earnings, New York State factories, June 1914 = 100.

6/ Bureau of Labor Statistics indexes for manufacturing industries. Revised.

1923-1924 = 100.

7/ November, 1938, latest data available.

Based on reports from crop correspondents. The data for previous quarters appear in "Crops and Markets" for February, April, July, and October; and in the 1938 issue of "Agricultural Statistics," tables 571 and 572.



FARM WAGE RATES AND RELATED DATA, BY GEOGRAPHIC DIVISIONS,  
JANUARY 1, 1939, WITH COMPARISONS

Geographic division	: Annual : average : 1910-14	: : Oct. 1, : 1937	: : Jan. 1 : 1938	: : Oct. 1 : 1938	: : Jan. 1, : 1939
FARM WAGE RATES 1/	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Per month with board					
New England	24.18	33.53	31.22	31.83	31.08
Middle Atlantic	22.25	30.99	27.83	29.42	27.05
East North Central	23.75	31.96	26.70	29.74	25.40
West North Central	26.32	29.78	21.85	28.83	21.98
South Atlantic	14.62	17.47	16.63	16.41	16.54
East South Central	14.71	16.50	15.70	15.68	15.54
West South Central	17.35	20.05	18.80	19.19	18.08
Mountain	32.48	38.12	32.30	36.84	30.96
Pacific	33.45	46.30	43.00	41.83	41.35
Per month without board					
New England	37.70	56.40	53.55	55.13	54.71
Middle Atlantic	33.41	48.20	44.58	45.83	44.15
East North Central	32.80	44.37	39.10	41.68	37.95
West North Central	36.86	40.48	32.87	39.20	33.33
South Atlantic	20.97	25.72	25.06	24.40	24.93
East South Central	20.80	23.66	22.43	22.66	22.47
West South Central	24.93	29.18	27.57	27.86	26.83
Mountain	46.42	53.71	47.52	52.29	46.22
Pacific	48.16	62.44	67.00	62.05	62.43
Per day with board					
New England	1.27	1.96	1.71	1.84	1.72
Middle Atlantic	1.24	1.95	1.72	1.78	1.61
East North Central	1.31	1.83	1.54	1.65	1.43
West North Central	1.46	1.69	1.24	1.59	1.25
South Atlantic	.81	.95	.89	.87	.86
East South Central	.81	.84	.79	.77	.77
West South Central	.98	1.07	.95	.97	.92
Mountain	1.50	1.86	1.55	1.81	1.53
Pacific	1.49	2.19	2.01	2.02	1.92
Per day without board					
New England	1.71	2.73	2.54	2.58	2.56
Middle Atlantic	1.63	2.54	2.32	2.39	2.20
East North Central	1.68	2.37	2.04	2.16	1.94
West North Central	1.88	2.24	1.77	2.12	1.74
South Atlantic	1.05	1.25	1.19	1.16	1.18
East South Central	1.05	1.11	1.02	1.03	1.03
West South Central	1.25	1.34	1.25	1.24	1.19
Mountain	2.05	2.42	2.09	2.33	2.09
Pacific	2.06	3.08	2.86	2.71	2.62

1/ Revised for dates prior to January 1, 1939.



FARM WAGE RATES AND RELATED DATA, BY GEOGRAPHIC DIVISIONS  
JANUARY 1, 1939, WITH COMPARISONS

Geographic division	Oct. 1 1936	Jan. 1 1937	Oct. 1 1937	Jan. 1 1938	Oct. 1 1938	Jan. 1 1939
SUPPLY OF FARM LABOR (Percentage of normal) <u>1/</u>						
New England	36.6	91.2	83.2	97.8	90.5	92.5
Middle Atlantic	79.9	85.0	71.1	86.7	87.9	92.5
East North Central	82.2	86.4	77.2	94.0	91.3	96.2
West North Central	90.2	95.4	87.2	94.6	92.2	96.8
South Atlantic	84.4	87.7	76.6	88.6	87.9	90.5
East South Central	84.3	89.0	77.9	89.0	86.5	90.6
West South Central	87.3	95.2	83.5	92.4	91.1	94.5
Mountain	88.6	96.0	88.0	99.2	97.7	100.3
Pacific	90.1	97.1	90.5	100.0	104.0	104.8
DEMAND FOR FARM LABOR (Percentage of normal) <u>1/</u>						
New England	88.9	86.2	94.4	85.7	87.4	87.9
Middle Atlantic	90.5	87.4	93.7	83.0	87.0	80.9
East North Central	89.8	86.2	94.9	81.9	86.0	81.8
West North Central	69.0	71.0	83.3	73.1	77.2	74.8
South Atlantic	87.4	82.5	94.6	83.4	81.3	81.2
East South Central	89.2	85.5	93.4	83.1	81.1	80.2
West South Central	82.0	75.0	90.4	73.9	76.9	73.1
Mountain	83.4	80.7	86.2	75.4	82.3	75.9
Pacific	92.6	87.2	95.8	82.3	79.2	81.3
SUPPLY AS A PERCENTAGE OF DEMAND (Percentage of normal) <u>1/</u>						
New England	97.4	105.8	88.1	114.1	103.5	105.2
Middle Atlantic	88.3	97.3	75.9	104.5	101.0	114.3
East North Central	91.5	100.2	81.3	114.8	106.2	117.6
West North Central	130.7	134.4	104.7	129.4	119.4	129.4
South Atlantic	96.6	99.1	81.0	106.2	108.1	111.5
East South Central	94.5	104.1	83.4	107.1	106.7	113.0
West South Central	106.5	126.9	92.4	125.0	118.5	129.3
Mountain	106.2	119.0	102.1	131.6	118.7	132.1
Pacific	97.3	111.4	94.5	121.5	131.3	128.9
FARM EMPLOYMENT (Thousands of persons) <u>2/</u>						
Family Labor						
New England	159	157	163	157	166	159
Middle Atlantic	409	397	404	397	401	399
East North Central	1,159	1,099	1,145	1,097	1,139	1,106
West North Central	1,345	1,203	1,302	1,208	1,329	1,224
South Atlantic	1,836	1,312	1,819	1,253	1,784	1,272
East South Central	1,907	1,220	1,954	1,199	1,857	1,233
West South Central	1,832	1,189	1,742	1,164	1,616	1,169
Mountain	295	278	287	278	286	275
Pacific	353	298	317	298	318	301

1/ Revised for dates prior to January 1, 1939.

2/ Estimates of actual employment are shown in place of numbers of persons employed per 100 crop reporting farms beginning with this issue.

FARM WAGE RATES AND RELATED DATA, BY GEOGRAPHIC DIVISIONS  
JANUARY 1, 1939, WITH COMPARISONS (Continued)

Geographic division	Oct. 1, 1936	Jan. 1, 1937	Oct. 1, 1937	Jan. 1, 1938	Oct. 1, 1938	Jan. 1, 1939
FARM EMPLOYMENT (Thousands of persons) <sup>1/</sup>						
Hired Labor						
New England	99	71	101	63	102	69
Middle Atlantic	229	142	245	144	232	147
East North Central	394	234	413	246	412	229
West North Central	367	197	412	199	412	215
South Atlantic	632	346	640	360	596	374
East South Central	361	191	322	175	319	171
West South Central	457	251	537	271	561	354
Mountain	187	97	200	89	220	84
Pacific	242	153	338	164	304	156
Total						
New England	258	228	264	220	268	228
Middle Atlantic	638	539	649	541	633	546
East North Central	1,553	1,333	1,558	1,343	1,551	1,335
West North Central	1,712	1,400	1,714	1,407	1,741	1,439
South Atlantic	2,468	1,658	2,459	1,613	2,380	1,596
East South Central	2,268	1,411	2,276	1,374	2,176	1,404
West South Central	2,289	1,440	2,279	1,435	2,177	1,403
Mountain	482	375	487	367	506	359
Pacific	595	451	655	462	622	457

<sup>1/</sup> Estimates of actual employment are shown in place of numbers of persons employed per 100 crop reporting farms beginning with this issue.

Continued from page 2.

Except in dairy regions little work was done on farms throughout the nation on the first of this month, primarily as a result of the holidays. Tobacco stripping was making good progress in Kentucky. Dry weather slowed up plowing for spring planting in the southern Great Plains area. Snow cover retarded farm operations from New England west to Idaho and eastern Washington. Farm work was limited to chores and routine care of livestock in the Lake Region and the Northeast.

The estimated number of hired hands employed on farms shrunk from 3,158,000 at the peak of the fall harvest season on October 1, 1938 to only 1,629,000 persons on January 1 of this year. This was the smallest number of hired hands working on the first of any month during the 14-year period covered by the record. This reflects the sharp seasonal downturn in farm labor requirements and the drop in the demand for farm labor as reported by crop correspondents. A year ago approximately 1,711,000 wage workers were employed by farmers.

The number of unpaid family workers (including farm operators) also declined sharply during the last quarter of 1938. Approximately 7,138,000 persons were working on farms without cash wages on January 1 as compared with 8,896,000 on October 1 of last year and 7,051,000 on January 1, 1938.

Continued on page 10

## FARM WAGE RATES AND RELATED DATA, BY STATES, JANUARY 1, 1939

State	Per month		Per day		Supply of and demand for farm labor		
	With	Without	With	Without	Supply as	Demand as	Supply as
	board	board	board	board	percentage	percentage	percentage
	of normal	of normal	of normal	of normal	of demand	of normal	of demand
	Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent
Maine	27.25	43.00	1.55	2.10	99	76	130
N.H.	31.00	52.25	1.85	2.65	88	88	100
Vt.	28.50	46.50	1.55	2.30	92	82	100
Mass.	31.50	58.75	1.80	2.70	92	92	100
R.I.	37.50	65.00	1.80	2.75	98	98	100
Conn.	34.25	62.25	1.80	2.80	91	88	103
N.Y.	27.25	44.50	1.60	2.20	92	79	116
N.J.	30.00	52.00	1.70	2.35	98	84	117
Pa.	25.75	40.75	1.60	2.15	91	82	111
Ohio	24.75	36.75	1.50	1.95	94	81	116
Ind.	25.50	36.75	1.35	1.80	96	81	119
Ill.	29.00	40.25	1.50	2.00	95	83	114
Mich.	24.00	39.00	1.50	2.05	95	78	122
Wis.	23.25	36.75	1.30	1.85	100	84	119
Minn.	20.25	34.00	1.35	1.95	98	79	124
Iowa	25.50	36.75	1.45	2.00	100	85	118
Mo.	21.50	30.00	1.05	1.35	91	74	123
N.Dak.	15.75	29.50	1.00	1.60	93	63	148
S.Dak.	19.50	32.00	1.15	1.75	94	62	152
Nebr.	21.50	31.50	1.25	1.70	101	63	160
Kans.	22.50	33.75	1.25	1.70	98	63	144
Del.	22.75	35.75	1.50	1.80	96	84	114
Md.	25.50	37.75	1.25	1.70	94	80	118
Va.	21.00	30.00	1.05	1.40	93	85	109
W.Va.	20.75	31.50	1.05	1.45	91	78	117
N.C.	16.75	24.50	.90	1.15	92	84	110
S.C.	11.75	17.00	.60	.80	82	74	111
Ga.	12.25	17.75	.65	.85	90	81	111
Fla.	14.75	26.50	.80	1.25	91	81	112
Ky.	19.50	27.50	.95	1.25	89	83	107
Tenn.	16.00	23.00	.80	1.00	91	80	114
Ala.	13.00	19.00	.65	.90	89	79	113
Miss.	13.75	20.50	.70	.95	92	79	116
Ark.	15.25	23.00	.75	1.00	92	73	126
La.	14.75	22.50	.80	1.05	90	76	118
Okla.	19.50	28.50	1.00	1.35	94	69	136
Tex.	19.75	29.00	1.00	1.25	97	73	133
Mont.	32.50	48.00	1.65	2.40	100	69	145
Idaho	32.75	46.75	1.70	2.20	108	82	132
Wyo.	33.00	47.50	1.55	2.15	99	80	124
Colo.	27.25	42.75	1.35	1.95	102	76	134
N.Mex.	26.75	38.75	1.25	1.65	90	77	117
Ariz.	34.50	52.25	1.50	2.00	99	78	127
Utah	37.50	52.75	2.05	2.45	103	78	132
Nev.	38.75	57.00	1.65	2.15	108	82	132
Wash.	30.25	47.75	1.70	2.40	105	78	135
Oreg.	31.50	48.75	1.65	2.15	103	81	127
Calif.	45.00	67.25	2.05	2.75	105	82	128
U.S.	24.86	34.92	1.20	1.53	94.8	79.2	119.7



FARM WAGE RATES AND INDEX NUMBERS, UNITED STATES, BY YEARS 1909-38,  
AND BY QUARTERS, JAN. 1923-JAN. 1939 1/

Year and quarter	Farm wage rates				Weighted average rate per month 2/ 14 = 100	Index numbers of farm wage rates (1910- 14 = 100) Percent
	Per month		Per day			
	With	Without	With	Without		
	board	board	board	board		
	Dollars	Dollars	Dollars	Dollars	Dollars	
1909	22.21	28.10	1.09	1.30	23.77	96
1910	21.22	28.08	1.12	1.39	23.93	97
1911	21.49	28.54	1.13	1.39	24.15	98
1912	22.23	29.34	1.18	1.43	24.98	101
1913	22.89	30.21	1.20	1.46	25.59	103
1914	22.62	29.74	1.17	1.43	25.13	101
1915	22.97	30.06	1.18	1.44	25.41	103
1916	25.17	32.84	1.31	1.58	27.93	113
1917	31.11	40.52	1.65	1.98	34.79	141
1918	37.96	48.80	2.15	2.54	43.73	177
1919	43.29	56.63	2.54	3.03	51.13	207
1920	51.73	65.40	2.98	3.46	59.88	242
1921	33.62	44.67	1.77	2.12	38.29	155
1922	32.75	43.33	1.73	2.07	37.47	151
1923	37.24	48.25	1.89	2.25	41.87	169
1924	37.92	49.32	1.94	2.29	42.91	173
1925	38.77	49.90	1.97	2.29	43.51	176
1926	39.87	50.83	1.98	2.31	44.36	179
1927	40.11	50.85	1.98	2.28	44.36	179
1928	40.11	50.72	1.98	2.27	44.28	179
1929	40.61	51.22	1.96	2.25	44.52	180
1930	37.59	48.10	1.76	2.08	41.25	167
1931	28.77	38.38	1.32	1.62	32.11	130
1932	20.85	28.88	.94	1.20	23.66	96
1933	18.07	25.67	.85	1.11	21.10	85
1934	20.24	28.19	.98	1.26	23.61	95
1935	22.42	30.24	1.07	1.33	25.53	103
1936	24.53	32.28	1.15	1.42	27.51	111
1937	28.00	36.32	1.33	1.61	31.25	126
1938	27.72	35.63	1.31	1.58	30.61	124
1923:						
Jan.	31.48	42.49	1.55	1.93	35.80	145
Apr.	34.77	45.45	1.62	1.99	38.28	155
July	39.44	50.62	1.97	2.36	43.94	177
Oct.	39.35	50.13	2.15	2.44	44.78	181
1924:						
Jan.	35.81	47.99	1.89	2.28	41.54	168
Apr.	37.74	48.64	1.84	2.18	41.91	169
July	38.84	50.24	1.97	2.34	43.72	177
Oct.	38.79	50.10	2.05	2.37	44.09	178

Footnotes on page 10.

Continued



FARM WAGE RATE AND INDEX NUMBERS, UNITED STATES, BY YEARS 1909-38,  
AND BY QUARTERS JAN. 1923-JAN. 1939 1/ Continued

Year and quarter	Farm wage rates				Weighted average rate per month 2/ Dollars	Index num- bers of farm wage rates (1910- 1914 = 100) Percent
	per month		Per day			
	With	Without	With	Without		
	board	board	board	board		
	Dollars	Dollars	Dollars	Dollars		
1925:						
Jan.	35.03	47.44	1.83	2.21	40.85	165
Apr.	38.35	48.83	1.85	2.18	42.40	171
July	40.17	50.87	2.02	2.32	44.62	180
Oct.	39.79	50.82	2.11	2.38	45.03	182
1926:						
Jan.	36.04	48.95	1.62	2.24	41.20	166
Apr.	39.03	49.70	1.86	2.20	43.00	174
July	41.49	51.80	2.04	2.34	45.53	184
Oct.	40.99	51.83	2.09	2.42	45.86	185
1927:						
Jan.	37.51	49.85	1.89	2.26	42.78	173
Apr.	39.39	49.92	1.86	2.20	43.22	175
July	41.34	51.86	2.02	2.30	45.26	183
Oct.	41.42	51.57	2.12	2.35	45.72	185
1928:						
Jan.	36.72	48.86	1.85	2.21	41.91	169
Apr.	39.44	49.61	1.86	2.17	43.06	174
July	41.05	51.56	1.97	2.28	44.87	181
Oct.	41.50	51.65	2.15	2.36	45.89	185
1929:						
Jan.	38.01	49.92	1.89	2.25	43.00	174
Apr.	39.90	50.19	1.87	2.17	43.42	175
July	42.21	52.92	2.04	2.31	46.01	186
Oct.	41.48	51.39	2.03	2.28	45.19	183
1930:						
Jan.	37.17	49.36	1.81	2.17	42.03	170
Apr.	39.22	49.51	1.81	2.14	42.68	172
July	39.35	49.83	1.85	2.15	42.91	173
Oct.	36.78	46.57	1.72	2.00	40.08	162
1931:						
Jan.	30.61	42.27	1.46	1.82	35.14	142
Apr.	30.58	39.97	1.39	1.68	33.71	136
July	30.01	39.64	1.33	1.68	33.31	135
Oct.	27.25	36.15	1.23	1.52	30.26	122
1932:						
Jan.	23.04	33.13	1.07	1.39	26.84	108
Apr.	22.34	30.40	1.00	1.28	25.17	102
July	21.19	28.78	.95	1.19	23.70	96
Oct.	19.93	27.63	.90	1.14	22.61	91
1933:						
Jan.	16.74	24.95	.78	1.03	19.89	80
Apr.	16.60	23.64	.76	.99	19.24	78
July	18.34	25.72	.86	1.10	21.12	85
Oct.	19.65	27.35	.94	1.23	22.88	92

Footnotes on page 10.

Continued

FARM WAGE RATES AND INDEX NUMBERS, UNITED STATES, BY YEARS 1909-38,  
AND BY QUARTERS, JAN. 1923-JAN. 1939-1/ Continued

Year and quarter	Farm wage rates				Weighted average rate per month 2/ Dollars	Index : numbers of : farm wage : rates (1910- : 1914 = 100) Percent
	Per month		Per day			
	With	Without	With	Without		
	board	board	board	board		
	Dollars	Dollars	Dollars	Dollars		
1934:						
Jan.	17.37	26.31	.88	1.20	21.50	87
Apr.	19.97	27.71	.95	1.23	23.17	94
July	20.81	28.52	1.01	1.27	24.00	97
Oct.	21.23	28.91	1.02	1.30	24.45	99
1935:						
Jan.	19.14	28.17	.93	1.26	23.13	93
Apr.	21.62	29.57	.99	1.28	24.67	100
July	23.33	30.82	1.09	1.35	26.14	106
Oct.	23.61	31.04	1.16	1.38	26.53	108
1936:						
Jan.	20.89	29.69	1.02	1.32	24.68	100
Apr.	23.58	31.13	1.06	1.33	26.23	106
July	25.61	32.99	1.21	1.44	28.31	114
Oct.	25.74	33.27	1.22	1.49	28.73	116
1937:						
Jan.	23.37	32.62	1.12	1.45	27.29	110
Apr.	26.90	35.06	1.19	1.49	29.62	120
July	29.31	37.24	1.41	1.66	32.35	131
Oct.	29.84	38.11	1.46	1.73	33.25	134
1938:						
Jan.	25.18	34.70	1.22	1.55	29.26	118
Apr.	27.60	33.82	1.25	1.55	29.88	121
July	28.95	37.28	1.38	1.63	32.00	129
Oct.	28.25	36.09	1.36	1.59	31.20	126
1939:						
Jan.	24.86	34.92	1.20	1.53	29.03	117

1/ Revised.

2/ This column has significance only as an essential step in computing the wage rate index.

Continued from p. 6.

Extensive Revisions in Labor Series

Readers of the Bureau's reports on farm labor will note that many revisions have been made in the series presented in this issue. Data on agricultural employment, recently published in the aforementioned Works Progress Administration report, have been brought to date in this release and substituted for statistics relating to the average number of persons employed on farms of crop reporters. The availability of these more comprehensive series of employment statistics has made possible the re-weighting of regional data on wage rates, the supply of and demand for farm labor. Data from other labor surveys made by the Bureau also have provided weights for the different classes of wage rates, by regions, enabling the combination of monthly rates and the monthly equivalent of day rates for index number construction more in line with the proportion of total wage earners hired in each manner than has been possible heretofore.

Prior to the issuance of this report, the Bureau has used the number of hired farm workers, shown by the 1920 Census of Occupations, as weights for State

Continued on page 11

UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics

(Exhibit "B")

Farm Wage Rate Index Numbers, United States, 1909-38  
(Average 1910-14 = 100)



Revision of national wage rate series made little difference in the wage rate index prior to 1921. The new index series was 15 points higher than that based on the unrevised averages of wage rates in 1930. In 1938, the new index was 8 points higher.

Continued from page 10.

averages of farm wage rates in computing National averages. These weights were not changed when the 1930 Census of Occupations was released, because of an unfortunate lack of facilities for the re-computation and general revision of United States averages of farm wage rates during the twenties. Such revisions would have been necessary to maintain the historical series on a basis comparable with National averages of data currently collected.

The magnitude of the revision in the old series of index numbers of farm wage rates is shown in the above chart. The new wage rate index series has been from 6 to 8 points higher than the old series during the past 2 years although both indexes use the 1910-1914 period as a pre-war base. The principal reason for the higher level of the new index during recent years is the increase in the proportion of the total number of agricultural wage workers hired in the relatively high wage-rate areas of the Far West. Increased mechanization of farming operations in the North Central States has enabled the farm family to do a larger proportion of the total farm work. The natural growth of western agriculture has increased production of fruit, truck, cotton, and other crops in Pacific Coast States and in other relatively high wage areas.



FARM EMPLOYMENT: NUMBER OF PERSONS EMPLOYED ON THE FIRST OF EACH MONTH,  
UNITED STATES, 1930-38 1/  
(Thousands)

Month		1930	1931	1932	1933	1934	1935	1936	1937	1938
<u>TOTAL EMPLOYMENT</u>										
Jan.	1	8,980	8,951	8,931	8,958	9,044	9,175	9,152	8,835	8,762
Feb.	1	9,268	9,397	9,408	9,415	9,333	9,299	9,370	9,002	8,970
Mar.	1	9,782	9,959	9,875	9,688	9,592	9,712	9,742	9,321	9,308
Apr.	1	10,759	10,841	10,744	10,676	10,818	10,678	10,582	10,113	10,121
May	1	12,137	11,810	11,885	11,787	11,740	11,750	11,631	11,393	11,399
June	1	13,103	12,865	12,611	12,672	12,695	12,923	12,688	12,608	12,305
July	1	12,861	12,512	12,407	12,379	12,551	12,554	12,228	12,414	12,473
Aug.	1	11,525	11,402	11,380	11,494	10,911	11,910	11,254	11,199	11,299
Sept.	1	11,877	11,892	11,734	11,832	11,325	11,790	12,050	11,685	11,595
Oct.	1	12,605	12,630	12,502	12,470	12,000	12,409	12,263	12,341	12,054
Nov.	1	11,462	11,757	11,449	11,347	10,835	11,914	11,112	11,483	11,166
Dec.	1	9,715	9,890	9,871	9,563	9,381	9,947	9,888	9,570	9,482
Av.		11,173	11,159	11,069	11,023	10,852	11,172	10,997	10,830	10,745
<u>FAMILY WORKERS</u>										
Jan.	1	6,926	7,041	7,139	7,228	7,355	7,482	7,455	7,153	7,051
Feb.	1	7,254	7,511	7,579	7,504	7,495	7,543	7,530	7,165	7,132
Mar.	1	7,467	7,627	7,837	7,748	7,739	7,776	7,759	7,364	7,390
Apr.	1	8,094	8,186	8,379	8,436	8,506	8,448	8,214	7,822	7,834
May	1	8,962	8,875	9,145	9,193	9,174	9,202	8,975	8,726	8,783
June	1	9,671	9,663	9,696	9,761	9,797	10,025	9,864	9,581	9,484
July	1	9,348	9,274	9,410	9,488	9,621	9,609	9,373	9,314	9,321
Aug.	1	8,336	8,452	8,643	8,784	8,468	9,005	8,553	8,274	8,335
Sept.	1	8,687	8,975	8,982	9,050	8,777	9,002	9,053	8,685	8,563
Oct.	1	9,183	9,398	9,497	9,479	9,168	9,498	9,295	9,133	8,896
Nov.	1	8,488	8,860	8,755	8,800	8,421	9,152	8,457	8,648	8,433
Dec.	1	7,456	7,762	7,793	7,612	7,556	7,709	7,698	7,416	7,366
Av.		8,323	8,469	8,571	8,590	8,506	8,704	8,502	8,273	8,216
<u>HIRED WORKERS</u>										
Jan.	1	2,054	1,910	1,792	1,730	1,689	1,693	1,697	1,682	1,711
Feb.	1	2,014	1,886	1,829	1,911	1,838	1,756	1,840	1,839	1,838
Mar.	1	2,315	2,332	2,038	1,940	1,853	1,936	1,963	1,957	1,918
Apr.	1	2,665	2,655	2,365	2,240	2,312	2,230	2,368	2,291	2,287
May	1	3,175	2,935	2,740	2,594	2,566	2,548	2,656	2,637	2,616
June	1	3,432	3,202	2,915	2,911	2,898	2,898	3,024	3,027	2,821
July	1	3,513	3,238	3,032	2,891	2,930	2,945	2,855	3,100	3,152
Aug.	1	3,189	2,950	2,737	2,710	2,443	2,905	2,701	2,925	2,964
Sept.	1	3,190	2,917	2,752	2,782	2,548	2,788	2,997	2,998	3,032
Oct.	1	3,422	3,232	3,005	2,991	2,832	2,911	2,968	3,208	3,158
Nov.	1	2,974	2,897	2,694	2,547	2,414	2,762	2,655	2,835	2,733
Dec.	1	2,259	2,128	2,078	1,951	1,825	2,238	2,190	2,154	2,116
Av.		2,850	2,690	2,498	2,433	2,346	2,468	2,494	2,557	2,529

1/ Data from 1930 to 1936 from Shaw, E.E. and Hopkins, J.A., Trends in Employment in Agriculture, 1909-36, Works Progress Administration, National Research Project Report No. A-8, Philadelphia, Penna., Nov. 1938, Page 153.



EXHIBIT "B"  
UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

Washington, D. C.  
July 14, 1939.

FARM WAGE RATE INDEX DOWN  
3 POINTS FROM YEAR AGO

Wage rates paid to agricultural workers increased slightly less than usual during the April-June quarter this year, the Agricultural Marketing Service reported today. At 126 percent of pre-war, the July 1 level was 5 points higher than on April 1, but was the lowest July wage index since 1936. It was 3 points lower than on July 1, 1938.

All classes of farm wage rates advanced during the second quarter, the wages per day with board showing the greatest percentage increase. The July 1 rates were consistently lower, however, than a year earlier. Day rates increased most since April in the West North Central States where the winter wheat harvest materially increased labor requirements. The change in day rates was slight in the East South Central States. Cotton chopping had been largely completed in many southeastern areas.

Labor Supply Smaller; Demand Greater

Reports received from crop correspondents indicate that the supply of farm labor in relation to demand remained above normal on July 1, although somewhat below the level prevailing 3 months ago. The supply of labor in rural areas that was available for farm work averaged 89.6 percent of normal on July 1, compared with 93 percent in April and with 92.3 percent a year ago. Data available through May indicate a slight increase in employment in manufacturing industries as compared with July 1 of last year.

The demand for farm labor, as reported by crop correspondents, increased from 82.8 percent of normal on April 1 to 84.6 percent on July 1. The upturn was general in all parts of the country except in the Rocky Mountain States

SPECIAL TO THIS ISSUE

	<u>Page</u>
Farm Employment in East South Central States.....	8
Seasonal Variation in Farm wage rates .....	9
Revised labor supply and demand ratios .....	10-11
Methods of harvesting grain crops....	14
Custom harvest rates .....	16

where, from Wyoming south to Arizona and New Mexico, minor declines were rather uniformly recorded. Farm labor requirement rose in most sections, however, as the small grain harvest got under way. Demand for farm labor on July 1 was reported eight-tenths of a point higher than on the same date last year.

Farm Employment Down

Farm employment declined during June with a decrease in the number of family workers more than offsetting the slight increase in hired workers during the month. Total employment on farms in the United States was estimated at 12,215,000 on July 1. This was about 1 percent less than a month earlier but about 23 percent more than on April 1. On July 1 a year ago farm employment was estimated at 12,473,000 persons.

The small grain harvest was in full swing on the first of July in most Winter Wheat States, except in sections where heavy rains interfered with field work. These wet areas included parts of the western Ohio and lower Mississippi valleys, and the southwestern Wheat Belt. Rains also interfered with crop cultivation in many parts of the Cotton Belt.

Compared with a month earlier, more hired farm workers were employed on July 1 in all sections of the country except the South Atlantic and East South Central States where cotton chopping was nearly finished.

The estimated number of hired hands employed on farms on July 1 was 3,091,000. This was about 6 percent more than a month earlier and about 41 percent more than on April 1. Hired employment on July 1, however, totaled about 2 percent less than a year earlier when farm product prices were at a somewhat higher level.

The number of unpaid family workers (including farm operators) was estimated at 9,124,000 on July 1. This was about 3 percent less than a month earlier, but about 17 percent more than on April 1. A year ago approximately 9,321,000 family workers were actively engaged <sup>in</sup> the work on farms in the United States.

Continued on page 6

UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

Washington, D. C.  
July 14, 1939

FARM WAGE RATES AND RELATED DATA, UNITED STATES, JULY 1, 1939,  
WITH COMPARISONS

	Annual average 1910-14	April 1, 1938	July 1, 1938	April 1, 1939	July 1, 1939
FARM WAGE INDEX:					
Unadjusted	100	121	129	121	126
Adjusted for seasonality	100	123	125	123	122
FARM WAGE RATES:					
Per month, with board	\$20.41	\$27.60	\$28.95	\$27.08	\$28.18
Per month, without board	29.09	33.82	37.28	35.42	36.26
Per day, with board	1.10	1.25	1.38	1.23	1.36
Per day, without board	1.43	1.55	1.63	1.53	1.59
SUPPLY OF AND DEMAND FOR FARM LABOR:					
(Percentage of normal)					
Supply	--	93.9	1/92.3	93.0	89.6
Demand	--	81.9	1/83.8	82.8	84.6
Supply as a percentage of demand	--	114.7	1/110.1	112.3	105.9
FARM EMPLOYMENT:					
(Thousands of persons)					
Family labor	--	7,844	9,321	7,773	9,124
Hired labor	--	2,287	3,152	2,187	3,091
Combined	--	10,131	12,473	9,960	12,215
RELATED INDEXES:					
Prices received by farmers <sup>3/</sup>	100	94	95	89	<sup>5/</sup> 89
Ratio of prices received to farm wage rates	100	78	74	74	71
Industrial wage rates <sup>4/</sup>	--	204	205	211	<sup>5/</sup> 210
Industrial employment <sup>6/</sup>	--	86	82	91	<sup>5/</sup> 90
Industrial payrolls <sup>6/</sup>	--	75	71	85	<sup>5/</sup> 84

<sup>1/</sup>Revised.

<sup>2/</sup>Estimates of actual employment are shown in place of number of persons employed per 100 crop-reporting farms.

<sup>3/</sup>As of the 15th of the month.

<sup>4/</sup>Average weekly earnings, New York State factories, June 1914 = 100.

<sup>5/</sup>May 1939 - latest data available.

<sup>6/</sup>Bureau of Labor Statistics indexes for manufacturing industries, revised 1923-1925 = 100.

<sup>7/</sup>June 1939 - latest data available.

Based on reports from approximately 21,163 correspondents. The data for previous quarters, by States, appear in Crops and Markets for January, April, July and October.



FARM WAGE RATES AND RELATED DATA, BY GEOGRAPHIC DIVISIONS,  
JULY 1, 1939, WITH COMPARISONS

Geographic division	Annual average 1910-14 Dollars	April 1, 1938 Dollars	July 1, 1938 Dollars	April 1, 1939 Dollars	July 1, 1939 Dollars
FARM WAGE RATES					
Per month with board					
New England	24.18	31.83	33.40	31.92	32.96
Middle Atlantic	22.25	29.18	30.05	28.48	29.23
East North Central	23.75	29.11	29.91	28.80	29.57
West North Central	26.32	28.35	29.47	28.21	29.05
South Atlantic	14.62	16.50	17.06	16.10	16.89
East South Central	14.71	15.78	15.98	15.97	16.47
West South Central	17.35	18.70	19.39	18.54	19.19
Mountain	32.43	34.95	37.37	35.03	37.24
Pacific	33.45	44.39	44.19	40.89	43.18
Per month without board					
New England	37.70	55.66	57.23	56.23	57.24
Middle Atlantic	33.41	46.01	46.56	45.39	45.56
East North Central	32.80	41.03	41.91	40.91	41.71
West North Central	36.86	38.93	39.82	38.41	39.19
South Atlantic	20.97	24.43	25.11	24.32	25.17
East South Central	20.80	22.73	23.05	22.95	23.57
West South Central	24.93	27.29	28.37	26.94	27.68
Mountain	46.42	51.00	53.53	51.00	53.64
Pacific	48.16	66.68	65.96	62.31	64.04
Per day with board					
New England	1.27	1.73	1.84	1.73	1.79
Middle Atlantic	1.24	1.69	1.79	1.64	1.74
East North Central	1.31	1.53	1.66	1.50	1.66
West North Central	1.46	1.39	1.56	1.38	1.57
South Atlantic	.81	.86	.89	.84	.90
East South Central	.81	.78	.80	.78	.81
West South Central	.98	.93	.99	.92	1.00
Mountain	1.50	1.63	1.74	1.61	1.75
Pacific	1.49	1.95	2.10	1.96	2.00
Per day without board					
New England	1.71	2.55	2.62	2.72	2.71
Middle Atlantic	1.63	2.32	2.37	2.26	2.33
East North Central	1.68	2.02	2.16	2.03	2.15
West North Central	1.88	1.92	2.09	1.87	2.06
South Atlantic	1.05	1.15	1.19	1.14	1.20
East South Central	1.05	1.00	1.03	1.02	1.04
West South Central	1.25	1.22	1.28	1.18	1.26
Mountain	2.05	2.19	2.31	2.22	2.34
Pacific	2.06	2.81	2.78	2.66	2.70



**FARM WAGE RATES AND RELATED DATA, BY GEOGRAPHIC DIVISIONS,  
JULY 1, 1939, WITH COMPARISONS**

Geographic divisions	April 1, 1937	July 1, 1937 <sup>1/</sup>	April 1, 1938	July 1, 1938 <sup>1/</sup>	April 1, 1939	July 1, 1939
<b>SUPPLY OF FARM LABOR (Percentage of normal)</b>						
New England	87.0	79.1	99.9	94.9	92.0	87.5
Middle Atlantic	81.0	71.8	88.2	87.1	90.8	87.3
East North Central	83.4	77.2	96.4	93.1	94.1	90.9
West North Central	91.8	84.7	94.7	92.0	95.0	91.8
South Atlantic	82.7	78.3	89.1	88.1	88.6	84.4
East South Central	85.9	81.4	89.3	87.5	88.2	83.0
West South Central	91.0	90.1	91.7	92.1	92.1	89.4
Mountain	93.7	90.2	102.9	98.6	99.4	97.2
Pacific	96.4	92.7	104.9	104.3	104.0	101.0

<b>DEMAND FOR FARM LABOR (Percentage of normal)</b>						
New England	92.3	95.0	84.3	87.4	86.8	89.9
Middle Atlantic	90.8	94.4	86.3	86.7	84.3	85.3
East North Central	92.0	95.0	83.5	86.6	84.5	87.3
West North Central	79.4	86.6	79.5	84.6	80.1	81.9
South Atlantic	91.3	93.4	84.4	85.8	87.0	87.9
East South Central	90.2	90.7	84.4	83.4	86.1	89.7
West South Central	79.7	85.7	76.9	78.2	75.0	78.2
Mountain	85.2	88.8	78.4	82.4	81.4	80.3
Pacific	89.5	93.2	79.9	81.2	80.8	85.4

<b>SUPPLY AS A PERCENTAGE OF DEMAND (Percentage of normal)</b>						
New England	94.3	83.3	118.5	108.6	106.0	97.3
Middle Atlantic	89.2	76.1	102.2	100.5	107.7	102.3
East North Central	90.7	81.3	115.4	107.5	111.4	104.1
West North Central	115.6	97.8	119.1	108.7	118.6	112.1
South Atlantic	90.6	83.8	105.6	102.7	101.8	96.0
East South Central	95.2	89.7	105.8	104.9	102.4	92.5
West South Central	114.2	105.1	119.2	117.8	122.8	114.3
Mountain	110.0	101.6	131.2	119.7	122.1	121.0
Pacific	107.7	99.5	131.3	128.4	128.7	118.3

**FARM EMPLOYMENT (Thousands of persons)**

**Total family and hired**

New England	248	281	253	284	241	277
Middle Atlantic	586	720	605	719	594	728
East North Central	1,476	1,666	1,469	1,688	1,451	1,611
West North Central	1,575	1,959	1,590	1,942	1,582	1,905
South Atlantic	1,981	2,489	1,988	2,574	1,975	2,458
East South Central	1,639	2,048	1,665	2,010	1,603	2,027
West South Central	1,632	2,170	1,630	2,143	1,573	2,118
Mountain	442	538	404	527	415	501
Pacific	534	543	527	586	526	590

<sup>1/</sup>Supply of and demand for farm labor, and supply-demand ratios revised.

FARM WAGE RATES AND RELATED DATA, BY GEOGRAPHIC DIVISIONS,  
JULY 1, 1939, WITH COMPARISONS (Continued)

Geographic Division	April 1, 1937	July 1, 1937	April 1, 1938	July 1, 1938	April 1, 1939	July 1, 1939
FARM EMPLOYMENT						
<u>Family Labor</u>						
New England	162	176	163	175	161	172
Middle Atlantic	406	461	412	458	410	469
East North Central	1,153	1,249	1,156	1,261	1,148	1,209
West North Central	1,288	1,486	1,278	1,459	1,286	1,437
South Atlantic	1,486	1,920	1,511	1,970	1,496	1,859
East South Central	1,398	1,762	1,441	1,749	1,386	1,742
West South Central	1,322	1,621	1,298	1,633	1,268	1,601
Mountain	296	328	286	309	290	305
Pacific	311	311	299	307	328	330
<u>Hired Labor</u>						
New England	86	105	90	109	80	105
Middle Atlantic	180	259	193	261	184	259
East North Central	323	417	313	427	303	402
West North Central	287	473	312	483	296	468
South Atlantic	495	569	477	604	479	599
East South Central	241	286	224	261	217	285
West South Central	310	549	332	510	305	517
Mountain	146	210	118	218	125	196
Pacific	223	232	228	279	198	260

-----0-----

Farm Employment Trend Down  
in East South Central States

A study of employment on farms in the East South Central States shows a decrease each year since 1935. Total employment in this region averaged 1,766,000 in 1938. This was about 2 percent less than the average for 1937 and about 6 percent less than for 1935.

Total agricultural employment tended to increase in this area from 1930 to 1935 influenced largely by additions to the number of family workers employed on farms. Low farm incomes in 1932 and the drought of 1934 which affected some of these States were accompanied by declines in the number of hired hands employed in these years.

Seasonal Variation in Farm Wage Rates

Farm wage rates have a pronounced seasonal variation. They normally rise about 7 percent from the low winter level to that maintained during the summer and fall. Labor requirements usually are considerably higher on farms in the United States during the summer and fall than during the winter months. Labor requirements for the production and care of most kinds of livestock remain fairly constant throughout the year. But for crop production they are much greater during the harvest season from June to November when new crop cultivation, and many other jobs also must be performed. Thus, seasonal fluctuation in the demand for hired labor ordinarily results in considerable seasonal variation in farm wage rates.

Continued on page 11



## Farm Wage Rates and Related Data, by States, July 1, 1939

State	Per month		Per day		Supply of and demand for farm labor		
	With	Without	With	Without	Supply as	Demand as	Supply as
	board	board	board	board	percentage	percentage	percentage
	Dollars	Dollars	Dollars	Dollars	of normal	of normal	or demand
Maine	33.00	45.50	1.60	2.25	90	86	105
N. H.	31.00	56.00	2.15	3.00	77	96	80
Vt.	31.25	48.25	1.75	2.45	86	97	89
Mass.	32.00	61.75	1.95	2.85	91	88	103
R. I.	40.00	65.50	2.20	3.05	99	99	100
Conn.	35.25	65.00	1.85	2.90	84	88	95
N. Y.	30.50	46.00	1.75	2.35	86	84	102
N. J.	32.50	54.25	1.85	2.50	92	87	106
Pa.	26.75	42.00	1.70	2.25	87	86	101
Ohio	26.75	39.50	1.70	2.15	87	85	102
Ind.	27.75	37.75	1.55	1.95	92	88	105
Ill.	33.00	43.50	1.75	2.25	91	88	103
Mich.	29.00	43.50	1.70	2.25	90	89	101
Wis.	30.00	43.00	1.55	2.05	95	87	109
Minn.	32.25	43.75	1.70	2.35	95	85	112
Iowa	34.25	43.50	1.85	2.35	95	89	107
Mo.	24.00	32.00	1.20	1.50	84	87	97
N. Dak.	29.75	43.00	1.30	1.95	91	69	132
S. Dak.	29.25	41.50	1.40	2.00	90	68	132
Nebr.	27.00	36.50	1.45	1.95	93	73	127
Kans.	25.75	37.00	1.75	2.15	94	76	124
Del.	25.00	38.00	1.50	1.90	94	87	108
Md.	27.50	39.50	1.45	1.95	90	94	96
Va.	21.50	30.75	1.10	1.45	89	88	101
W. Va.	21.75	32.00	1.05	1.50	87	83	105
N. C.	16.75	24.75	.95	1.20	87	90	97
S. C.	12.50	18.75	.60	.80	80	84	95
Ga.	12.25	18.25	.70	.90	79	89	89
Fla.	15.50	26.50	.85	1.25	86	84	102
Ky.	21.25	30.00	1.00	1.30	87	89	98
Tenn.	16.75	24.50	.80	1.05	85	90	94
Ala.	14.00	19.75	.70	.90	81	91	89
Miss.	14.50	21.00	.75	.95	80	89	90
Ark.	16.50	24.25	.80	1.05	83	84	99
La.	15.25	22.75	.80	1.05	86	85	101
Okla.	21.00	30.50	1.25	1.55	91	78	117
Tex.	20.75	29.50	1.05	1.30	92	74	124
Mont.	39.50	55.75	1.90	2.60	97	81	120
Idaho	39.50	54.50	1.90	2.50	103	86	120
Wyo.	37.00	54.00	1.30	2.30	96	83	116
Colo.	30.75	46.75	1.50	2.10	96	79	122
N. Mex.	28.00	40.50	1.25	1.65	93	75	124
Ariz.	39.75	57.00	1.70	2.10	97	79	123
Utah	44.50	58.50	2.20	2.60	97	78	124
Nev.	46.00	66.75	2.00	2.80	96	80	120
Wash.	37.00	55.00	1.95	2.60	102	83	123
Oreg.	37.50	54.50	1.90	2.45	100	89	112
Calif.	46.50	69.50	2.05	2.80	101	85	119
U. S.	28.18	36.26	1.36	1.59	89.6	84.6	105.9

Farm Employment: Numbers of Persons Employed on the First of  
Each Month; East South Central States, 1930-38 <sup>1/</sup>

TOTAL EMPLOYMENT									
Date	1930	1931	1932	1933	1934	1935	1936	1937	1938
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	persons	persons	persons	persons	persons	persons	persons	persons	persons
Jan. 1	1,427	1,381	1,373	1,432	1,480	1,462	1,465	1,411	1,374
Feb. 1	1,520	1,512	1,526	1,538	1,533	1,494	1,528	1,408	1,406
Mar. 1	1,597	1,566	1,623	1,571	1,542	1,630	1,620	1,502	1,476
Apr. 1	1,841	1,790	1,793	1,805	1,805	1,845	1,813	1,639	1,665
May 1	2,102	2,014	2,034	2,021	2,065	2,147	2,027	1,960	1,975
June 1	2,320	2,309	2,243	2,278	2,294	2,313	2,270	2,291	2,236
July 1	2,096	2,074	2,089	2,076	2,123	2,044	1,932	2,048	2,010
Aug. 1	1,646	1,625	1,646	1,666	1,658	1,738	1,579	1,585	1,617
Sept. 1	2,040	2,031	2,006	2,081	1,957	1,983	2,054	1,962	1,928
Oct. 1	2,222	2,279	2,253	2,244	2,202	2,320	2,266	2,276	2,176
Nov. 1	1,831	1,973	1,934	1,935	1,877	2,022	1,819	1,968	1,842
Dec. 1	1,487	1,601	1,551	1,531	1,566	1,541	1,532	1,468	1,486
Average	1,844	1,846	1,839	1,848	1,842	1,878	1,825	1,793	1,766

FAMILY WORKERS									
Jan. 1	1,238	1,220	1,217	1,266	1,309	1,300	1,293	1,220	1,199
Feb. 1	1,323	1,340	1,372	1,339	1,352	1,326	1,322	1,206	1,216
Mar. 1	1,367	1,322	1,424	1,383	1,367	1,428	1,383	1,279	1,278
Apr. 1	1,570	1,525	1,564	1,577	1,574	1,630	1,554	1,398	1,441
May 1	1,786	1,733	1,767	1,782	1,817	1,897	1,754	1,675	1,712
June 1	1,958	1,978	1,954	1,984	1,987	2,003	1,938	1,944	1,931
July 1	1,789	1,797	1,827	1,837	1,845	1,784	1,703	1,762	1,749
Aug. 1	1,420	1,427	1,478	1,472	1,476	1,516	1,379	1,364	1,406
Sept. 1	1,741	1,782	1,751	1,840	1,737	1,740	1,746	1,681	1,651
Oct. 1	1,879	1,934	1,969	1,960	1,950	2,023	1,907	1,954	1,857
Nov. 1	1,572	1,895	1,704	1,689	1,622	1,748	1,537	1,680	1,579
Dec. 1	1,289	1,401	1,366	1,343	1,381	1,318	1,307	1,263	1,267
Average	1,578	1,596	1,616	1,623	1,618	1,643	1,569	1,536	1,524

HIRED WORKERS									
Jan. 1	189	161	156	166	171	162	172	191	175
Feb. 1	197	172	154	199	181	168	206	202	190
Mar. 1	230	244	199	188	175	202	237	223	198
Apr. 1	271	265	229	228	231	215	259	241	224
May 1	316	281	267	239	248	250	273	285	263
June 1	362	331	289	294	307	310	332	347	305
July 1	307	277	262	239	278	260	229	286	261
Aug. 1	226	198	168	194	182	222	200	221	211
Sept. 1	299	249	255	241	220	243	308	281	277
Oct. 1	343	345	292	284	252	297	359	322	319
Nov. 1	259	278	230	246	255	274	282	288	263
Dec. 1	198	200	185	188	185	223	225	205	219
Average	266	250	224	226	224	236	257	258	242

<sup>1/</sup>Data from 1930 to 1936 based on estimates from Shaw, E.E., and Hopkins, J.A., Trends in Employment in Agriculture, 1909-36, Work Progress Administration, National Research Project Report No.A-8, Philadelphia, Penna., Nov. 1938.



Index numbers of farm wage rates; adjusted and unadjusted for  
seasonal variation, United States, by quarters

January 1923-July 1939 <sup>1/</sup>

(1910-14 = 100)

Year and month	Unadjusted	Adjusted	Year and month	Unadjusted	Adjusted
1923:			1932:		
Jan.....	145	151	Jan.....	108	113
Apr.....	155	158	Apr.....	102	104
July.....	177	172	July.....	96	93
Oct.....	181	176	Oct.....	91	88
1924:			1933:		
Jan.....	168	175	Jan.....	80	83
Apr.....	169	172	Apr.....	78	80
July.....	177	172	July.....	85	83
Oct.....	178	173	Oct.....	92	89
1925:			1934:		
Jan.....	165	173	Jan.....	87	91
Apr.....	171	174	Apr.....	94	96
July.....	180	175	July.....	97	94
Oct.....	182	177	Oct.....	99	96
1926:			1935:		
Jan.....	166	173	Jan.....	93	97
Apr.....	174	178	Apr.....	100	102
July.....	184	179	July.....	106	103
Oct.....	185	180	Oct.....	108	105
1927:			1936:		
Jan.....	173	180	Jan.....	100	104
Apr.....	175	179	Apr.....	106	108
July.....	183	173	July.....	114	111
Oct.....	185	180	Oct.....	116	113
1928:			1937:		
Jan.....	159	176	Jan.....	110	115
Apr.....	174	172	Apr.....	120	122
July.....	181	176	July.....	131	127
Oct.....	185	180	Oct.....	134	130
1929:			1938:		
Jan.....	174	181	Jan.....	118	123
Apr.....	175	179	Apr.....	121	123
July.....	186	181	July.....	129	125
Oct.....	183	178	Oct.....	126	122
1930:			1939:		
Jan.....	170	177	Jan.....	117	122
Apr.....	172	176	Apr.....	121	123
July.....	173	168	July.....	126	122
Oct.....	162	157			
1931:					
Jan.....	142	143			
Apr.....	136	139			
July.....	135	131			
Oct.....	122	118			

<sup>1/</sup>Data apply to the first of the month.

Farm Labor: Supply and Demand Statistics, by Geographic Division,  
July 1, 1923-39 1/

SUPPLY OF FARM LABOR (PERCENTAGE OF NORMAL)

Year	New Eng- land	Middle Atlan- tic	East North Central	West North Central	South Atlan- tic	East South Central	West South Central	Moun- tain	Pacific	United States
1923	70.5	64.3	67.5	85.3	75.2	79.5	90.5	90.6	88.3	79.2
1924	88.2	81.7	89.1	95.9	79.8	81.9	87.0	96.8	104.5	88.5
1925	91.6	84.0	92.5	97.3	85.2	90.6	94.1	99.5	98.3	92.3
1926	90.4	83.3	87.6	95.5	84.0	87.1	91.0	95.0	97.7	89.8
1927	88.3	83.9	90.4	96.4	86.9	88.0	89.6	96.9	100.0	91.2
1928	96.3	91.0	94.2	97.8	89.1	87.6	93.6	98.3	101.0	93.8
1929	90.2	89.2	90.8	95.5	91.5	91.2	92.4	97.2	100.0	93.0
1930	102.6	98.7	109.4	105.4	100.2	98.6	104.2	111.5	108.5	104.4
1931	111.7	110.9	116.0	111.7	105.8	107.5	111.5	122.4	120.0	112.3
1932	132.3	122.9	130.8	126.8	114.5	119.1	125.9	132.0	132.5	124.9
1933	124.6	115.5	122.6	121.1	108.5	109.0	115.5	126.4	124.2	117.5
1934	100.2	102.8	111.1	113.4	95.4	99.1	109.3	113.9	108.5	105.6
1935	97.2	95.4	96.5	96.8	94.5	91.6	97.0	99.8	98.6	96.1
1936	88.3	83.7	85.6	91.1	88.0	89.5	93.2	87.8	89.7	88.8
1937	79.1	71.8	77.2	84.7	78.3	81.4	90.1	90.2	92.7	82.9
1938	94.9	87.1	93.1	92.0	88.1	87.5	92.1	98.6	104.3	92.3
1939	87.5	87.3	90.9	91.8	84.4	83.0	89.4	97.2	101.0	89.6

DEMAND FOR FARM LABOR (PERCENTAGE OF NORMAL)

1923	86.8	82.7	91.4	94.6	93.6	95.9	94.2	91.7	97.3	92.8
1924	89.2	86.8	88.0	90.9	90.2	91.1	95.3	91.5	83.1	90.0
1925	91.7	89.5	88.6	94.3	91.2	90.2	83.8	90.0	95.2	90.3
1926	92.7	90.6	91.7	91.4	88.8	91.3	95.1	95.6	96.3	92.2
1927	91.1	88.0	90.4	92.0	89.3	88.6	87.5	90.6	93.5	90.0
1928	92.4	86.9	87.6	89.9	89.1	92.9	77.2	92.3	92.4	87.9
1929	92.3	90.8	91.6	92.3	89.2	90.3	90.7	92.9	87.8	90.8
1930	90.5	86.2	80.6	83.9	81.8	80.3	75.8	81.5	85.1	81.8
1931	82.1	80.6	75.9	72.9	75.6	72.1	66.1	69.7	75.5	73.8
1932	73.8	72.9	64.1	58.8	65.1	59.2	54.3	60.2	66.2	62.7
1933	75.8	74.5	69.4	60.6	69.1	64.2	56.9	63.5	69.2	66.2
1934	80.9	78.3	70.4	59.7	77.6	73.2	61.1	65.8	77.2	70.6
1935	85.5	82.3	85.8	78.7	81.9	78.9	74.7	78.8	84.5	80.8
1936	90.4	88.6	89.8	81.8	84.1	75.5	77.5	83.1	91.4	84.0
1937	95.0	94.4	95.0	86.6	93.4	90.7	85.7	88.8	93.2	90.8
1938	87.4	86.7	86.6	84.6	85.8	83.4	78.2	82.4	81.2	83.8
1939	89.9	85.3	87.3	81.8	87.9	89.7	78.2	80.3	85.4	84.6

Continued

(Exhibit "C",

Farm Labor: Supply and Demand Statistics, by Geographic Divisions,  
July 1, 1923-39 1/ (Continued)

SUPPLY AS A PERCENTAGE OF DEMAND (PERCENTAGE OF NORMAL)

Year	New Eng- land	Middle Atlan- tic	East North Central	West North Central	South Atlan- tic	East South Central	West South Central	Moun- tain	Pacific	United States
1923	81.2	77.8	73.9	90.2	80.3	82.9	96.1	98.8	90.8	85.3
1924	98.9	94.1	101.2	105.5	88.5	89.9	91.3	105.8	125.8	98.3
1925	99.9	93.9	104.4	103.2	93.4	100.4	112.3	110.6	103.3	102.2
1926	97.5	91.9	95.5	104.5	94.6	95.4	95.7	99.4	101.5	97.4
1927	96.9	95.3	100.0	104.8	97.3	100.0	102.4	107.0	107.0	101.3
1928	104.2	104.7	107.5	108.8	100.0	94.3	121.2	106.5	109.3	106.7
1929	96.7	98.2	99.1	103.5	102.6	101.0	101.9	104.6	113.9	102.4
1930	113.4	114.5	135.7	125.6	122.5	122.8	137.5	136.8	127.5	127.6
1931	136.1	137.6	152.8	153.2	139.9	149.1	168.7	175.6	153.9	152.2
1932	179.3	168.6	204.1	215.6	175.9	201.2	231.9	219.3	200.2	199.2
1933	164.4	155.0	176.7	199.8	157.0	169.8	203.0	199.1	179.5	177.5
1934	123.9	131.3	157.8	139.9	122.9	135.4	178.9	173.1	140.5	149.6
1935	113.7	115.9	112.5	123.0	115.4	116.1	129.9	126.6	116.7	118.9
1936	97.7	94.5	95.3	111.4	104.6	118.5	120.3	105.7	98.1	105.7
1937	83.3	76.1	81.3	97.8	83.8	89.7	105.1	101.6	99.5	91.3
1938	108.6	100.5	107.5	108.7	102.7	104.9	117.8	119.7	128.4	110.1
1939	97.3	102.3	104.1	112.1	96.0	92.5	114.3	121.0	118.3	105.9

1/Revised for dates prior to July 1, 1939.

----- On -----

The new series of index numbers of farm wage rates has been adjusted for normal seasonal variation. These adjusted figures, together with the unadjusted index numbers are shown from January 1923 to July 1939 in the table on page 9 of this report. Seasonal adjustment factors were determined on the basis of the average relationship of the quarterly indexes to the annual averages during the past 16 years. The factors so obtained were as follows: January, 96; April, 98; July, 103; October 103. This relationship of the quarterly indexes to the annual averages appears to have been fairly stable, and examination of the series revealing no appreciable trend in these ratios since 1923. Adjustments for seasonal variation were made by dividing indexes of farm wage rates for each quarter by the seasonal adjustment factor for the corresponding date.

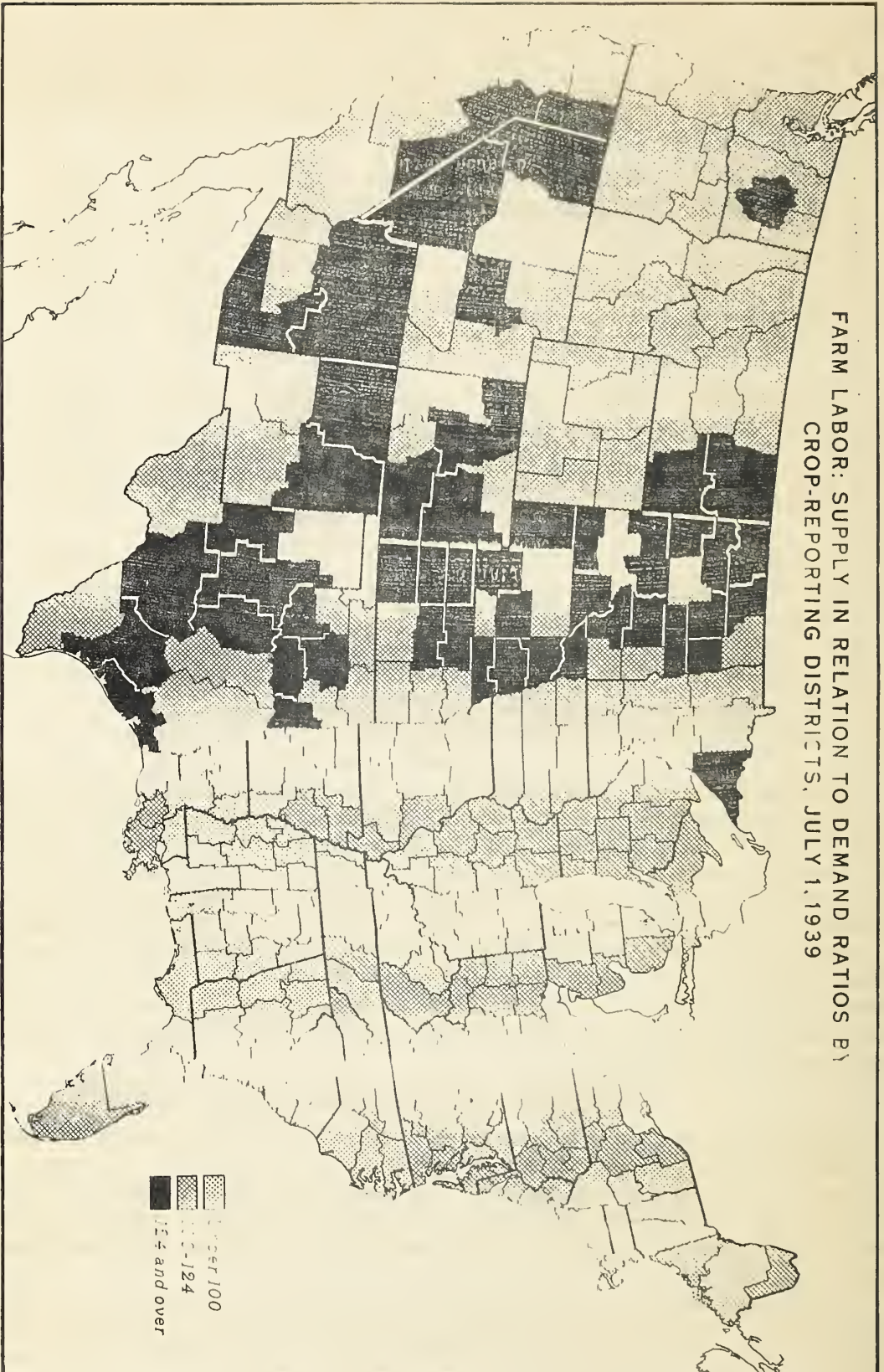
Farm Labor Supply and Demand Ratios Revised

Included in this issue are revised figures on the supply of and the demand for farm labor, and supply-demand ratios as of July 1, from 1923 to date. Similar series as of April 1 were published in the Farm Labor Report for April of this year. In all of these series the number of hired workers was used as a weighting factor in place of the 1920 Census of Occupation data previously employed for this purpose in all months.

During the past 17 years, reports from farmers indicate that there has seldom been an actual shortage of farm labor on July 1 for the country as a whole. The supply demand ratio on July 1 was below 100 only in 1923, 1924, 1926, and again in 1937. From 1926 to 1932 the ratio increased steadily. At the peak in 1932, when the ratio reached 199 percent, labor was very plentiful but jobs for hired workers were very scarce because of the extremely low level of farm income. The July 1 ratio declined steadily from 1932 to 1937 when it reached 91. It increased sharply in 1938 but again declined slightly in 1939 as employment in other industries picked up.



FARM LABOR: SUPPLY IN RELATION TO DEMAND RATIOS BY  
CROP-REPORTING DISTRICTS, JULY 1, 1939



U. S. DEPARTMENT OF AGRICULTURE

FIG. 4 AGRICULTURAL MARKETING SERVICE

FOR THE UNITED STATES AS A WHOLE THE SUPPLY OF FARM LABOR ON JULY 1 EXCEEDED THE DEMAND. THIS SURPLUS WAS GREATEST IN THE WESTERN HALF OF THE COUNTRY WITH THE RATIO OF SUPPLY TO DEMAND OVER 125 PERCENT FOR MANY DISTRICTS. IN CENTRAL AND EASTERN FARMING AREAS THE RATIO AVERAGED ONLY SLIGHTLY ABOVE 100 PERCENT, WHILE FOR MOST OF THE SOUTH AND A LARGE PART OF NEW ENGLAND IT WAS LESS THAN 100.



UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service  
Bureau of Agricultural Economics

Acreage of Wheat, Oats and Corn for Grain, Harvested by Specified  
Methods, and Custom Harvest and Labor Rates, 1938

Crop reporters of the Department of Agriculture were circularized on February 1, 1939 for information relative to the methods of harvesting wheat and oats for grain; acreage of corn for grain harvested with a picker; custom rates for threshing and "combing" wheat and oats and for harvesting corn with a picker; labor cost per bushel for husking corn by hand, and the amount of money paid and number of meals furnished hired day labor for harvesting small grains.

The inquiry was in response to requests from various sources for detailed information relative to the use of the combine-harvester-thresher, and corn picker, and the cost of services and labor hired by farmers for harvesting their principal grain crops. It is the first time that crop reporters furnished information relative to grain-harvesting methods and custom rates for harvesting corn with a mechanical corn picker, but 4 years earlier they had furnished information relative to custom threshing rates, custom rates for combining, and the labor cost per bushel of husking corn by hand.

Crop reporters were asked to furnish information applicable to their immediate locality and the data apply to crops harvested in 1938 only. Climatic conditions, insect infestation, crop yields, and prices received by farmers for their crops all affect to some extent harvesting methods and rates paid for hired services and labor. For example, in some of the Great Plains States, because of grasshopper infestations in the summer of 1938, the use of the combine-harvester-thresher probably was curtailed. Low yields in some States were reflected in relatively high charges per bushel for threshing small grain and husking corn. On the other hand, low yields tend to be reflected in low charges per acre for harvesting corn with a picker and for harvesting small grains with a combine-harvester-thresher. Low yields and relatively low prices result in low crop values per acre, and operators of machines for hire must of necessity consider this aspect, as well as the cost of operating the machine, in arriving at a custom rate for the use of their machines.

Methods of Harvesting Grain Crops

The results of the survey indicate that about 49 percent of the wheat acreage in 1938 was harvested with a "combine," about 47 percent with a binder, and about 4 percent with the header, cradle, etc. The "combine" was used in all States producing wheat that were included in the survey, but its use was most pronounced along the Pacific Coast and in the hard winter wheat States of the Southern Great Plains (tables 1 and 2). The binder was also used in all wheat-producing States. It was used extensively in the major spring wheat States, the Corn Belt, and the Eastern States.

Continued on page 17

Table 1.- Acreage of wheat, oats and corn for grain harvested by specified methods, by States, 1938 <sup>1/</sup>

State	Wheat acreage			Oat acreage			Corn acreage
	harvested with			harvested with			harvested with
	Combine	Binder	All other:	Combine	Binder	All other:	mechanical
	Percent	Percent	Percent	Percent	Percent	Percent	picker
N.Y.	11	87	2	5	86	9	1
N.J.	24	73	3	18	70	12	2
Pa.	6	92	2	4	91	5	3
Ohio	22	77	1	14	85	1	12
Ind.	30	69	1	20	78	2	22
Ill.	44	55	1	22	77	1	43
Mich.	16	84	2/	9	89	2	5
Wis.	3	96	1	3	95	2	5
Minn.	6	94	2/	3	96	1	35
Iowa	28	72	2/	8	91	1	35
Mo.	22	76	2	9	82	9	2
N.Dak.	23	70	7	6	89	5	5
S.Dak.	19	71	10	2	96	2	18
Nebr.	51	48	1	6	92	2	4
Kans.	82	16	2	18	80	2	1
Del.	11	89	2/	5	95	2/	2/
Md.	3	96	1	2	92	6	2/
Va.	3	83	14	4	60	36	2/
W.Va.	1	58	41	2	35	63	2/
M.C.	11	67	22	12	44	44	2/
S.C.	8	62	30	7	53	40	2/
Ga.	11	45	44	7	41	52	2/
Ky.	8	85	7	3	62	35	2
Tenn.	6	85	9	5	71	24	-
Ala.	22	35	43	10	18	72	-
Miss.	-	-	-	23	19	58	2/
Ark.	12	68	20	4	41	55	-
La.	-	-	-	26	22	52	2/
Okla.	70	28	2	10	84	6	-
Tex.	82	18	2/	18	73	9	-
Mont.	55	40	5	10	81	9	-
Idaho	40	57	3	25	73	2	2/
Wyo.	32	60	8	7	80	13	2
Colo.	44	41	15	7	86	7	4
N.Mex.	58	37	5	15	74	11	2/
Ariz.	93	7	2/	22	78	-	-
Utah	41	56	3	6	94	2/	-
Nev.	63	24	13	47	53	-	-
Wash.	83	14	3	35	59	6	-
Oreg.	78	21	1	37	61	2	2/
Calif.	95	4	1	3/	3/	3/	3/
U.S. <sup>4/</sup>	49	47	4	10	83	7	13

<sup>1/</sup>No information relative to the above harvesting practices was obtained in the New England States or Florida. <sup>2/</sup>Less than one-half of one percent. <sup>3/</sup>No information relative to these practices was obtained. <sup>4/</sup>United States average based on States included in the study. The reporting States had more than 99.9 percent of the United States harvested wheat acreage and about 99.0 percent of the harvested acreage of oats and corn for grain in 1938.

Table 2.- Acreage of wheat, oats and corn for grain harvested by specified methods, by geographic divisions, 1938 <sup>1/</sup>

Division	Wheat acreage			Oat acreage			Corn acreage
	harvested with			harvested with			harvested with
	Combine	Binder	All other	Combine	Binder	All other	mechanical
	Percent	Percent	Percent	Percent	Percent	Percent	picker
M.Atl.	8	90	2	5	88	7	3
E.N.Cent.	30	69	1	14	84	2	28
W.N.Cent.	48	48	4	7	91	2	19
So.Atl.	6	76	18	8	48	44	<u>2/</u>
E.S.Cent.	7	85	8	10	39	51	<u>2/</u>
W.S.Cent.	75	24	1	12	60	28	<u>2/</u>
Mount.	50	44	6	11	81	8	3
Pacific	84	14	2	37	60	3	<u>2/</u>
U.S.	49	47	4	10	83	7	13

<sup>1/</sup> Averages for States reporting - See table 1.<sup>2/</sup> Less than one-half percent of average.

Table 3.- Wheat, oats and corn: Custom harvest and labor rates, by geographic divisions, 1938

Division	Custom rate		Custom rate		Custom	Custom rate		Amount paid and	
	per acrr		per bushel		rate per:	per bushel		meals furnished	
	for combining		for threshing		acre for:	for husking corn		hired day labor	
	Wheat	Oats	Wheat	Oats	cal corn:	Standing:	Shock	small grains	
					picker	Stalk			Meals
	Dollars	Dollars	Cents	Cents	Dollars	Cents	Cents	Dollars	Number
N.Eng.	-	-	9.2	7.0	-	-	8.3	2.20	1.3
M.Atl.	3.30	3.20	6.2	4.5	3.70	4.8	5.7	2.20	1.6
E.N.Cent.	2.30	2.25	5.6	3.3	2.20	4.4	6.1	2.20	1.8
W.N.Cent.	1.90	2.20	6.8	3.3	2.00	4.4	4.7	2.45	2.7
So.Atl.1/	2.80	2.65	6.4	4.8	2.80	4.2	5.1	1.50	1.6
E.S.Cent.	2.55	2.40	8.1	5.8	2.10	3.5	4.5	1.30	1.2
W.S.Cent.	1.55	2.10	8.3	4.7	-	4.7	5.6	1.75	1.9
Mount.	1.95	2.45	6.7	4.7	2.35	5.9	6.2	2.50	2.5
Pacific1/	2.35	3.15	6.8	4.7	-	6.7	7.3	3.10	1.9
U.S. 1/	1.90	2.30	6.6	3.6	2.10	4.3	5.8	2.30	2.3

<sup>1/</sup> Averages for States reporting - See table 4.



Table 4.- Wheat, oats and corn: Custom harvest and labor rates, by States,  
1938

State	Custom rate per acre for combining	Custom rate per bushel for threshing	Custom rate per acre for mechanical picker	Custom rate per bushel for husking corn by hand from standing stalk	Amount paid and meals furnished hired day labor for harvesting small grains Meals				
	Dollars	Dollars	Cents	Cents	Dollars	Cents	Cents	Dollars	Number
Me.	1/	1/	9.3	7.6	1/	-	6.7	2.10	1.3
N.H.	1/	1/	-	8.8	1/	-	7.5	2.65	.8
Vt.	1/	1/	-	5.5	1/	-	7.6	2.20	1.4
Mass.	1/	1/	-	7.0	1/	-	8.2	2.85	.3
R.I.	1/	1/	-	8.5	1/	-	8.0	2.50	.8
Conn.	1/	1/	-	8.5	1/	-	9.0	2.90	1.1
N.Y.	3.15	3.15	6.3	4.8	4.30	5.8	6.1	2.25	1.4
N.J.	3.95	3.85	10.3	6.9	4.60	5.8	7.4	2.90	.9
Pa.	3.20	3.15	5.9	4.2	3.60	4.5	5.4	2.10	1.8
Ohio	2.50	2.50	5.8	3.7	2.50	4.8	6.5	2.15	1.6
Ind.	2.20	2.15	5.8	3.5	2.25	4.5	6.7	2.25	1.2
Ill.	2.20	2.10	5.3	2.7	2.15	4.2	5.9	2.45	1.6
Mich.	2.65	2.65	5.3	3.8	2.75	4.4	5.4	2.10	2.0
Wis.	2.65	2.65	5.1	3.4	2.40	4.7	5.3	1.90	2.6
Minn.	2.20	2.20	5.3	3.1	1.95	4.9	5.8	2.55	3.3
Iowa	2.35	2.35	5.2	2.7	2.05	4.2	5.8	2.45	2.2
Mo.	2.30	2.25	6.1	3.6	1.70	3.8	5.6	1.75	1.5
N.Dak.	1.80	1.90	9.0	5.4	1.95	6.7	8.1	2.35	3.4
S.Dak.	1.70	1.95	6.2	3.5	1.65	5.9	7.5	2.30	2.9
Nebr.	2.05	2.10	5.5	3.5	1.85	4.5	6.5	2.40	2.5
Kans.	1.85	2.05	6.6	4.2	1.95	4.0	5.4	2.75	2.4
Del.	2.75	2.75	7.1	5.0	-	4.1	6.3	2.15	1.6
Md.	2.70	3.00	6.1	4.5	-	4.2	7.0	2.05	2.2
Va.	2.85	3.20	5.9	4.4	-	4.6	5.0	1.55	1.8
W.Va.	2.80	2.75	6.2	4.6	-	4.3	5.0	1.45	1.9
N.C.	2.90	2.60	6.1	4.1	-	4.2	4.5	1.40	1.6
S.C.	2.80	2.75	8.7	4.8	-	3.7	3.8	1.20	.9
Ga.	2.65	2.50	8.9	5.3	-	4.0	5.0	1.20	1.2
Fla.	1/	1/	1/	1/	1/	4.9	-	-	-
Ky.	2.55	2.35	8.3	5.1	2.05	3.4	4.7	1.50	1.1
Tenn.	2.55	2.65	7.9	5.3	-	3.2	4.1	1.15	1.2
Ala.	2.30	2.25	9.3	5.9	-	4.0	-	1.05	1.4
Miss.	-	2.45	-	7.1	-	3.5	-	.90	1.1
Ark.	1.90	1.75	7.6	4.7	-	4.1	4.6	1.20	1.1
La.	-	3.90	-	6.1	-	4.5	-	1.10	1.2
Okla.	1.70	1.85	8.0	4.4	-	4.1	5.7	1.95	2.1
Tex.	1.40	2.10	9.3	4.9	-	4.1	5.7	1.60	1.7
Mont.	1.80	1.85	7.3	4.7	-	8.7	9.0	2.65	3.0
Idaho	2.60	2.75	5.8	4.6	-	5.8	8.0	2.55	2.2
Wyo.	2.00	2.35	5.8	4.2	1.60	6.8	7.0	2.10	2.2
Colo.	1.95	2.75	6.5	5.0	2.40	5.5	6.0	2.20	1.9
N.Mex.	1.40	2.60	7.9	5.5	-	5.5	6.0	1.75	2.1
Ariz.	3.15	2.85	10.0	7.0	-	-	-	2.40	1.0
Utah	2.40	2.80	6.7	5.5	-	7.0	-	2.60	1.1
Nev.	4.10	3.75	10.0	7.0	-	-	-	2.45	2.7
Wash.	2.40	2.75	7.3	1.9	-	7.5	-	3.25	2.4
Oreg.	2.25	3.40	5.7	4.4	-	7.5	-	2.60	1.9
Calif.	2.35	1/	9.0	1/	-	1/	1/	3.35	1.3
U.S. 2/	1.90	2.30	6.6	3.6	2.10	4.3	5.8	2.30	2.3

1/No information available. 2/Average for States reporting.



Farmers use the "combine" only to a limited extent for harvesting oats. For the country as a whole only about 10 percent of the acreage was "combined," 83 percent cut with a binder, and 7 percent harvested by all other methods. The use of the combine was most pronounced in the Pacific Northwest, but even here it was used less than the binder. Farmers usually prefer oat straw over wheat straw and straw from other small grains, and in order to obtain sufficient straw for their needs a relatively high percentage of the oats is harvested with a binder.

Use of the mechanical corn picker is known to have been rapidly increasing in recent years. The picker is used largely in the Corn Belt, especially in Illinois, Iowa, and Minnesota where hybrid corns are planted most extensively. For the country as a whole only about 13 percent of the acreage of corn harvested for grain in 1938 was harvested with a picker. Owing to the high corn yields in the States using the picker to the greatest extent, it is probable that about 20 percent of the total production of corn for grain was harvested with a picker.

#### Custom Rates for Harvesting

Custom rates for harvesting wheat with a combine-harvester-thresher varied from about \$4 per acre to about \$1.40 per acre in the different States. The higher rates were reported in some of the Western States, where much of the wheat is grown under irrigation, and in the Middle Atlantic States (table 3 and 4). In the States with the high "combine rates," fields usually tend to be of small size and wheat yields and wage rates are materially above the average of the country. Custom rates per acre for "Combining" were relatively low in the Great Plains, especially in the Southern Great Plains States. Factors contributing to the low custom rates in these areas were the large level fields, low wheat yields, and small returns from wheat. Low returns from wheat which resulted from low yields and relatively low prices were reflected in custom rates as low as \$1 per acre for combining" in some instances. In most States the custom-combine rate for "combining" oats varied but little from the wheat rate.

Custom rates for threshing wheat and oats varied appreciably in different States. Many factors contributed to this, but wage rates, yields per acre, and amount of grain available for stationary threshers were probably of chief importance. In some States, especially the South Atlantic and East South Central States, reports show that some farmers gave from 5 to 10 bushels of grain for each 100 bushels threshed as toll for threshing. In computing the threshing charge in these States the money value of the grain paid as toll was used as a threshing rate. In most States the rate per bushel for threshing oats was usually from 30 to 45 percent below the wheat rate.

Custom rates for harvesting corn with a corn picker varied in different States from less than \$2 to more than \$4 per acre. In the States where the corn picker was used most extensively, the State average was usually around \$2 to \$2.50 per acre. Custom rates for the corn picker usually follow fairly closely custom rates for harvesting small grains with a combine-harvester-thresher in the same State.

In most of the Corn Belt States and to a less extent in other States an appreciable part of the corn crop is harvested by contract labor at a specified rate per bushel. In the principal corn-producing States, the rate for husking corn

from the standing stalk by hand usually ranged from 4 to 5 cents a bushel. Rates in other States varied appreciably, and were highest in States where day wage rates tend to be high, but were also above the average in most States that had low corn yields. Rates for husking from the shock were usually from 25 to 40 percent higher than were rates for husking from the standing stalk. Spreads between the rates tended to narrow when corn yields were below average.

Money wages paid hired labor for harvesting small grains averaged around \$2.30 per day for the country as a whole. In addition to the money, harvest workers received an average of 2.3 meals per day. The money wage rate ranged from less than \$1 per day to more than \$3 per day in different States. Except in the South, however, wage rates were generally in excess of \$2 per day. Number of meals including lunches furnished per day ranged from three or more in North Dakota, Minnesota, and Montana to less than one meal in some of the Eastern States. Harvest labor in some States, especially in the major wheat States, is rather highly specialized. In these States highly skilled labor such as tractor and combine operators usually receive wages appreciably above the average.

EXHIBIT - D  
UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

Washington, D. C.  
October 13, 1939

FARM WAGE RATE INDEX  
UNCHANGED SINCE JULY 1

Farm wage rates averaged about the same on October 1 as 3 months earlier, the Agricultural Marketing Service reported today. At 126 percent of its 1910-14 average the wage index was unchanged during the third quarter and the same as a year ago.

Hired hands received an average of \$1.57 per day without board on the first of this month, or a little less than the national average of \$1.59 a year earlier. Day wages varied widely throughout the country, however, with October rates ranging from 85 cents in South Carolina to \$3 per day in New Hampshire.

The supply of workers available for hire in rural areas was slightly larger this month than on July 1 despite the rather general increase in employment in manufacturing industries. Reports received from crop correspondents as to the labor supply averaged 90.4 percent of normal on October 1 as compared with 89.6 percent 3 months earlier. Less help was available than a year ago, however, when the labor supply averaged 91.6 percent of normal.

With sizable fall crops being harvested and farm income up, the demand for hired farm labor was somewhat higher than a year ago. Reports on demand averaged 83.4 percent of normal on the first of this month, or 2.3 points higher than on October 1, 1938. Demand still averaged somewhat lower than on July 1 in many sections of the country, and especially in the South where cotton picking was reported to be nearing completion somewhat earlier than usual.



The ratio of labor supply to the demand for workers as of October 1 was a little lower than a year ago, averaging 102.4 percent of normal on the first of this month or 4.5 points less than on October 1, 1938. Increases in industrial employment probably accounted for the most of this decrease. Factory employment averaged 96 percent of its 1923-25 level in August of this year (the latest month for which data are available) as compared with 92 in October of last year.

Shortages of farm labor were indicated, however, in only a few areas. The demand for labor was reported in excess of the supply in several of the New England States and along the Eastern Seaboard from Pennsylvania to Georgia. A considerable surplus of workers was reported, on the other hand, in Nebraska and Kansas, the areas most seriously affected by the late summer drought.

#### Farm Employment Down from Year Ago

Farm employment increased during September but the secondary peak reached on October 1 was still considerably below the number of persons working on July 1 of this year. The total number of persons employed on farms on the first of this month was estimated at 11,826,000 as compared with 12,215,000 on July 1, and 12,054,000 a year ago. This was the lowest October 1 total estimated during the 14-year period covered by the record.

Corn husking was just beginning in many Northern States on the first of this month, while cotton picking was nearing completion in the southern portion of the Cotton Belt. Dry soil hindered seeding of winter grains in many Winter Wheat States, while rains delayed the sugar-beet harvest in some beet areas. Potato-digging was rather general in most of the large States but was not yet in full swing in Idaho. The apple harvest was well along in the Northeast.

Continued on page 6.

UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

FARM WAGE RATES AND RELATED DATA, UNITED STATES, OCTOBER 1, 1939

WITH COMPARISONS					
	: Annual	: July 1,	: Oct. 1,	: July 1,	: Oct. 1,
	: average	: 1938	: 1938	: 1939	: 1939
	: 1910-14	:	:	:	:
FARM WAGE INDEX:	:	:	:	:	:
Unadjusted .....	100	129	126	126	126
Adjusted for seasonality .....	100	125	122	122	122
FARM WAGE RATES*:	:	:	:	:	:
Per month, with board .....	\$22.09	\$28.95	\$28.25	\$28.18	\$28.28
Per month, without board .....	29.18	37.28	36.09	36.26	36.13
Per day, with board .....	1.16	1.38	1.36	1.36	1.35
Per day, without board .....	1.42	1.63	1.59	1.59	1.57
SUPPLY OF AND DEMAND FOR FARM LABOR:	:	:	:	:	:
(Percentage of normal)	:	:	:	:	:
Supply .....	--	92.3	91.6	89.6	90.4
Demand .....	--	83.8	81.1	84.6	83.4
Supply as a percentage of demand....	--	110.1	112.9	105.9	108.4
FARM EMPLOYMENT:	:	:	:	:	:
(Thousands of persons)	:	:	:	:	:
Family labor.....	--	9,321	8,896	9,124	8,864
Hired labor .....	--	3,152	3,158	3,091	3,022
Combined .....	--	12,473	12,054	12,215	11,886
RELATED INDEXES:	:	:	:	:	:
Prices received by farmers <u>1</u> /.....	100	95	95	89	<u>2</u> /98
Ratio of prices received to	:	:	:	:	:
farm wage rates.....	100	74	75	71	78
Industrial wage rates <u>3</u> /.....	--	205	212	213	<u>4</u> / 217
Industrial employment <u>5</u> /.....	--	85	92	94	<u>4</u> / 96
Industrial pay rolls <u>5</u> /.....	--	71	84	84	<u>4</u> / 90

1/As of the 15th of the month.

2/Sept. 1939 - latest data available.

3/Average weekly earnings, New York State factories, June 1914 = 100.

4/Aug. 1939 - latest data available.

5/Bureau of Labor Statistics indexes for manufacturing industries, revised 1923-1925 = 100.

\* Revised.

Based on reports from approximately 21,389 correspondents. The data for previous quarters, by States, appear in Crops and Markets for January, April, July and October.

Farm wage rates and related data, by geographic divisions,  
October 1, 1939, with comparisons

Geographic division	: Annual : average : 1910-14	: July 1, : 1938	: Oct. 1, : 1938	: July 1, : 1939	: Oct. 1, : 1939
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
<b>FARM WAGE RATES</b>					
Per month with board					
New England	24.18	33.40	31.83	32.96	33.52
Middle Atlantic	22.25	30.05	29.42	29.23	29.37
East North Central	23.75	29.91	29.74	29.57	29.75
West North Central	26.32	29.47	28.83	29.05	28.89
South Atlantic	14.62	17.06	16.41	16.89	16.86
East South Central	14.71	15.98	15.68	16.47	16.08
West South Central	17.35	19.39	19.19	19.19	18.98
Mountain	32.48	37.37	36.84	37.24	36.59
Pacific	33.45	44.19	41.83	43.18	44.79
Per month without board					
New England	37.70	57.23	55.13	57.24	56.52
Middle Atlantic	33.41	46.56	45.83	45.56	45.62
East North Central	32.80	41.91	41.68	41.71	42.07
West North Central	36.86	39.82	39.20	39.19	39.36
South Atlantic	20.97	25.11	24.40	25.17	24.80
East South Central	20.80	23.05	22.66	23.57	22.81
West South Central	24.93	28.37	27.86	27.68	27.46
Mountain	46.42	53.53	52.29	53.64	52.54
Pacific	48.16	65.96	62.05	64.04	67.04
Per day with board					
New England	1.27	1.84	1.84	1.79	1.84
Middle Atlantic	1.24	1.79	1.73	1.74	1.76
East North Central	1.31	1.66	1.65	1.66	1.67
West North Central	1.46	1.56	1.59	1.57	1.58
South Atlantic	.81	.89	.87	.90	.88
East South Central	.81	.80	.77	.81	.77
West South Central	.98	.99	.97	1.00	1.00
Mountain	1.50	1.74	1.81	1.75	1.72
Pacific	1.49	2.10	2.02	2.00	2.02
Per day without board					
New England	1.71	2.62	2.58	2.71	2.70
Middle Atlantic	1.63	2.37	2.39	2.33	2.35
East North Central	1.68	2.16	2.16	2.15	2.17
West North Central	1.88	2.09	2.12	2.06	2.11
South Atlantic	1.05	1.19	1.16	1.20	1.19
East South Central	1.05	1.03	1.03	1.04	1.03
West South Central	1.25	1.38	1.34	1.26	1.24
Mountain	2.05	2.31	2.33	2.34	2.27
Pacific	2.06	2.78	2.71	2.70	2.79



Farm wage rates and related data, by geographic divisions,  
October 1, 1939, with comparisons

Geographic division	July 1 1937	Oct. 1 1937	July 1, 1938	Oct. 1, 1938	July 1, 1939	Oct. 1 1939
SUPPLY OF FARM LABOR (Percentage of normal)						
New England	79.1	83.2	94.9	90.5	87.5	92.2
Middle Atlantic	71.8	71.1	87.1	87.9	87.3	88.5
East North Central	77.2	77.2	93.1	91.3	90.9	89.9
West North Central	84.7	87.2	92.0	92.2	91.8	92.5
South Atlantic	78.3	76.6	83.1	87.9	84.4	84.4
East South Central	81.4	77.9	87.5	86.5	83.0	82.1
West South Central	90.1	83.5	92.1	91.1	89.4	91.3
Mountain	90.2	88.0	98.6	97.7	97.2	95.2
Pacific	92.7	90.5	104.3	104.0	101.0	99.9
DEMAND FOR FARM LABOR (Percentage of normal)						
New England	95.0	94.4	87.4	87.4	89.9	88.1
Middle Atlantic	94.4	93.7	86.7	87.0	85.3	86.3
East North Central	95.0	94.9	86.6	85.0	87.3	87.6
West North Central	86.6	83.3	84.6	77.2	81.9	79.9
South Atlantic	93.4	94.6	85.8	81.3	87.8	86.6
East South Central	90.7	93.4	83.4	81.1	89.7	81.6
West South Central	85.7	90.4	78.2	76.9	78.2	76.3
Mountain	82.3	86.2	82.4	82.3	80.3	83.6
Pacific	93.2	95.2	81.2	79.2	85.4	87.7
SUPPLY AS A PERCENTAGE OF DEMAND (Percentage of normal)						
New England	83.3	88.1	108.6	103.5	97.3	100.1
Middle Atlantic	76.1	75.9	100.5	101.0	102.3	102.5
East North Central	81.3	81.3	107.5	106.2	104.1	102.6
West North Central	97.8	104.7	108.7	119.4	112.1	115.8
South Atlantic	83.2	81.0	102.7	102.1	96.0	97.5
East South Central	89.7	87.4	104.9	106.7	92.5	102.0
West South Central	105.1	92.4	117.2	113.5	114.3	119.7
Mountain	101.6	102.1	119.7	113.7	121.0	114.6
Pacific	99.5	94.5	122.4	131.3	113.3	113.9
FARM EMPLOYMENT (Thousands of persons)						
<u>Total family and hired</u>						
New England	231	264	284	268	277	265
Middle Atlantic	720	642	719	633	723	625
East North Central	1,666	1,552	1,688	1,551	1,611	1,516
West North Central	1,959	1,714	1,942	1,741	1,905	1,745
South Atlantic	2,429	2,459	2,574	2,320	2,453	2,353
East South Central	2,048	2,276	2,010	2,175	2,027	2,124
West South Central	2,170	2,279	2,143	2,177	2,118	2,191
Mountain	533	427	527	503	501	493
Pacific	543	655	586	622	590	574

Continued

Farm wage rates and related data, by geographic divisions,  
October 1, 1939, with comparisons (continued)

Geographic division	July 1, 1937	Oct. 1, 1937	July 1, 1938	Oct. 1, 1938	July 1 1939	Oct. 1 1939
<hr/>						
FARM EMPLOYMENT	:	:	:	:	:	:
<u>Family labor</u>	:	:	:	:	:	:
New England	: 176	163	175	156	172	166
Middle Atlantic	: 461	404	458	401	469	403
East North Central	: 1,249	1,145	1,261	1,139	1,209	1,128
West North Central	: 1,486	1,302	1,459	1,329	1,437	1,305
South Atlantic	: 1,920	1,819	1,970	1,784	1,859	1,767
East South Central	: 1,762	1,954	1,749	1,857	1,742	1,839
West South Central	: 1,621	1,742	1,633	1,616	1,601	1,653
Mountain	: 328	287	309	286	305	284
Pacific	: 311	317	307	318	330	319
<u>Hired labor</u>	:	:	:	:	:	:
New England	: 105	101	109	102	105	99
Middle Atlantic	: 259	245	261	232	259	222
East North Central	: 417	413	427	412	402	388
West North Central	: 473	412	483	412	468	440
South Atlantic	: 569	640	604	596	599	586
East South Central	: 286	322	261	319	285	285
West South Central	: 549	537	510	561	517	538
Mountain	: 210	200	218	220	196	209
Pacific	: 232	338	279	304	260	255

-----0-----

Continued from page 2.

The number of farm family workers (including farm operators) employed at these and other seasonal jobs on October 1 was estimated at 8,864,000 persons as compared with 9,124,000 on the first of July and 8,896,000 on October 1 of last year. Approximately 3,022,000 hired hands were working on farms October 1. This was only 69,000 less than on July 1, but about 136,000 fewer hands than a year earlier.

The farmer's ability to pay hired workers improved somewhat from July 1 to October 1 in view of the sharp rise in farm product prices. The ratio of prices received by farmers to farm wage rates on the first of this month, however, was still only about 78 percent of the 1910-14 average, although 7 points up since July 1 and 4 points higher than in October of last year.

## Farm wage rates and related data, by States, October 1, 1939

State	Per month		Per day		Supply of and demand for farm labor		
	With	Without	With	Without	Supply as	Demand as	Supply as
	board	board	board	board	percentage	percentage	percentage
	Dollars	Dollars	Dollars	Dollars	of normal	of normal	of demand
Maine	37.00	50.25	1.75	2.35	90	89	101
N.H.	33.75	53.00	2.15	3.00	87	89	98
Vt.	30.00	47.50	1.75	2.45	83	91	91
Mass.	33.75	63.75	1.95	2.85	89	82	109
R.I.	35.75	65.50	2.05	2.95	99	86	115
Conn.	35.25	65.00	1.90	2.90	87	93	94
N.Y.	70.25	46.00	1.75	2.35	89	85	105
N.J.	33.50	54.50	1.85	2.50	94	88	107
Pa.	27.00	42.00	1.75	2.30	86	87	99
Ohio	27.00	40.00	1.70	2.15	85	86	99
Ind.	28.25	38.00	1.55	2.00	90	88	102
Ill.	33.00	43.50	1.80	2.30	89	88	101
Mich.	29.25	43.50	1.70	2.25	89	88	101
Wis.	30.25	43.00	1.55	2.05	96	88	109
Minn.	32.25	44.00	1.85	2.55	93	85	109
Iowa	33.50	42.75	1.85	2.35	95	90	106
Mo.	23.50	31.50	1.15	1.45	87	82	106
N.Dak.	29.75	43.00	1.60	2.30	93	74	126
S.Dak.	29.25	41.50	1.60	2.10	89	70	127
Nebr.	25.00	35.50	1.35	1.80	96	62	155
Kans.	24.25	35.50	1.40	1.90	94	68	173
Del.	25.00	38.00	1.60	2.10	91	95	96
Md.	27.50	39.50	1.50	1.95	91	94	97
Va.	21.50	30.75	1.10	1.50	81	87	93
W.Va.	22.25	32.25	1.05	1.50	89	84	106
N.C.	17.75	25.50	.95	1.20	87	91	96
S.C.	12.75	18.75	.60	.85	78	84	93
Ga.	12.25	18.00	.70	.90	85	87	98
Fla.	17.25	27.50	.85	1.25	87	76	114
Ky.	21.00	29.25	1.00	1.70	87	84	104
Tenn.	17.00	24.50	.80	1.05	91	84	108
Ala.	13.75	19.50	.65	.90	87	79	110
Miss.	14.00	20.00	.70	.95	87	80	109
Ark.	16.00	23.25	.80	1.05	86	77	112
La.	15.25	22.75	.80	1.10	87	85	102
Okla.	20.75	30.00	1.15	1.45	94	74	127
Tex.	21.00	30.00	1.10	1.70	94	73	129
Mont.	39.50	55.75	2.05	2.70	96	80	120
Idaho	40.50	55.50	2.00	2.55	103	87	118
Wyo.	37.00	54.00	1.70	2.30	97	82	118
Colo.	30.75	46.25	1.50	2.10	97	75	129
N.Mex.	28.75	50.50	1.35	1.70	90	89	101
Ariz.	39.00	52.25	1.45	2.05	94	91	103
Utah	44.50	59.00	2.20	2.60	96	84	114
Nev.	38.00	53.25	1.90	2.20	90	82	110
Wash.	40.75	57.00	1.95	2.75	102	83	123
Oreg.	37.50	54.75	1.95	2.50	97	87	111
Calif.	47.25	72.00	2.05	2.85	100	89	112
U.S.	28.28	36.13	1.35	1.57	90.4	83.4	103.1



Farm labor: Supply and demand statistics, by geographic divisions,  
October 1, 1923-39 1/

SUPPLY OF FARM LABOR (PERCENTAGE OF NORMAL)

Year	New Eng- land	Middle Atlan- tic	East North Central	West North Central	South Atlan- tic	East South Central	West South Central	Moun- tain	Pacific	United States
1923	69.1	66.0	69.2	87.3	75.6	75.5	84.8	87.9	89.8	78.6
1924	91.1	84.3	89.4	94.6	79.3	84.0	86.4	99.1	105.5	88.9
1925	90.7	82.0	83.7	95.5	84.2	80.6	85.3	94.3	98.6	88.2
1926	88.5	80.2	84.8	94.9	78.6	80.5	83.5	96.1	98.4	86.0
1927	89.6	87.7	90.9	94.7	86.1	89.4	92.2	93.2	98.9	91.1
1928	91.5	92.5	91.6	94.9	89.6	90.1	90.7	94.7	99.5	92.3
1929	91.6	90.2	91.2	95.3	90.0	89.8	92.7	95.5	95.7	92.3
1930	103.8	101.1	112.3	107.3	101.1	101.9	108.0	114.1	107.1	106.3
1931	115.3	111.2	119.7	120.8	106.2	110.2	105.0	130.1	122.2	113.6
1932	132.7	126.2	134.6	128.4	115.3	115.7	118.3	134.8	130.7	124.1
1933	114.2	110.8	120.2	120.2	102.2	104.8	108.2	120.3	116.3	111.9
1934	107.4	100.4	106.2	112.9	96.9	95.9	109.7	116.3	110.2	105.2
1935	96.3	92.3	92.8	96.5	90.9	92.8	100.1	98.8	97.8	94.7
1936	86.6	79.9	82.2	90.2	84.4	84.3	87.3	88.6	90.1	85.7
1937	83.2	71.1	77.2	87.2	76.6	77.9	85.5	88.0	90.5	81.3
1938	90.5	87.9	91.3	92.2	87.9	86.5	91.1	97.7	104.0	91.6
1939	88.2	88.5	89.9	92.5	84.4	88.1	91.3	95.8	99.9	90.4

DEMAND FOR FARM LABOR (PERCENTAGE OF NORMAL)

Year	New Eng- land	Middle Atlan- tic	East North Central	West North Central	South Atlan- tic	East South Central	West South Central	Moun- tain	Pacific	United States
1923	91.3	90.3	92.6	90.4	90.4	90.4	93.0	94.3	98.0	92.1
1924	90.8	88.2	88.8	92.3	87.2	87.8	92.1	92.8	87.3	89.2
1925	89.7	88.8	90.8	92.5	87.5	93.7	91.3	94.5	94.8	91.3
1926	90.2	89.5	92.0	90.0	89.6	95.4	99.3	93.6	95.6	93.0
1927	90.0	87.7	86.8	92.3	87.2	87.7	86.1	97.2	94.9	89.2
1928	91.5	88.9	89.8	92.3	87.4	86.3	89.3	95.3	91.8	89.8
1929	91.4	89.1	89.2	89.4	87.1	89.8	86.1	94.6	90.3	88.7
1930	85.0	80.5	74.2	76.7	75.8	73.1	68.8	82.3	81.6	75.9
1931	80.6	77.6	67.8	60.4	72.0	67.9	71.4	60.5	70.6	69.3
1932	71.7	68.9	60.4	54.5	63.0	58.6	60.1	58.1	67.1	61.5
1933	77.9	73.2	66.9	58.9	73.0	67.3	65.4	68.3	77.7	68.8
1934	80.9	72.0	74.4	58.2	76.4	72.3	54.6	59.5	76.3	68.8
1935	84.3	84.0	88.6	76.9	83.0	76.4	70.9	77.6	89.1	80.4
1936	88.9	90.5	89.8	69.0	87.4	89.2	82.0	83.4	92.6	85.3
1937	94.4	93.7	94.9	83.3	94.6	93.4	90.4	86.2	95.8	91.9
1938	87.4	87.0	86.0	77.2	81.3	81.1	76.9	82.3	79.2	81.1
1939	88.1	86.3	87.6	79.9	86.6	81.6	76.3	83.6	87.7	83.4

Continued

Farm labor: Supply and demand statistics, by geographic divisions,  
October 1, 1923-39 1/ (Continued)

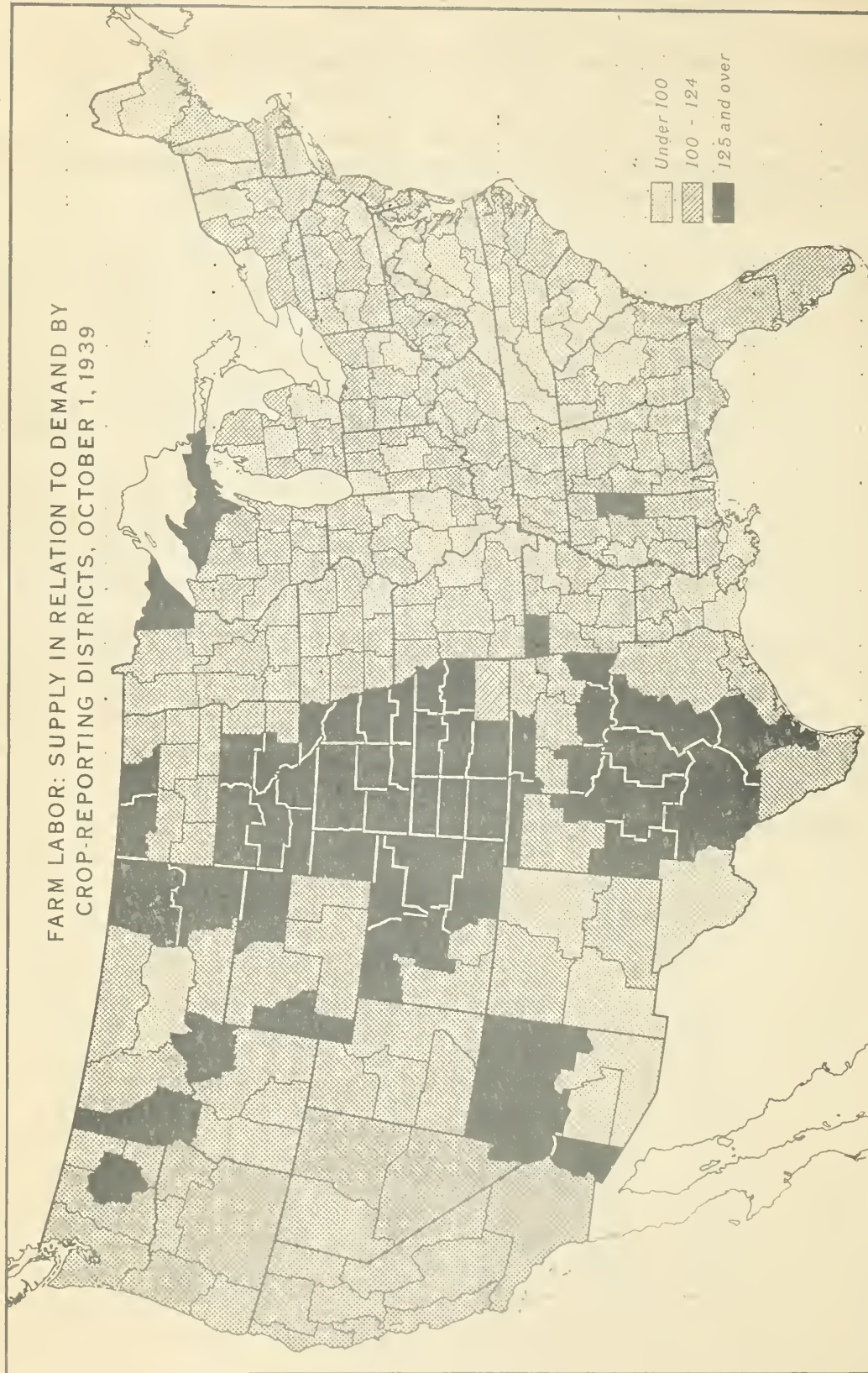
## SUPPLY AS A PERCENTAGE OF DEMAND (PERCENTAGE OF NORMAL)

Year	New Eng- land	Middle Atlan- tic	East North Central	West North Central	South Atlan- tic	East South Central	West South Central	Moun- tain	Pacific	United States
1923	75.7	73.1	74.7	96.6	83.6	83.5	91.2	93.2	91.6	85.3
1924	100.3	95.6	100.7	102.5	90.9	95.7	93.8	106.8	126.7	99.7
1925	101.1	92.3	97.7	103.2	96.2	86.0	93.4	99.8	104.0	96.6
1926	98.1	89.6	92.2	105.4	87.7	84.4	84.1	102.7	102.9	92.5
1927	99.6	100.0	104.7	102.6	98.7	101.9	107.1	95.9	104.2	102.1
1928	100.0	104.0	102.0	102.8	102.5	104.4	101.6	99.4	108.4	102.8
1929	100.2	101.2	102.2	106.6	103.3	100.0	107.7	101.0	106.0	104.1
1930	122.1	125.6	151.3	139.9	133.4	139.4	157.0	132.6	131.2	140.2
1931	143.1	143.7	176.5	200.0	147.5	162.3	147.1	215.0	173.1	163.9
1932	185.1	173.2	222.2	235.6	185.0	197.4	196.8	232.0	194.2	201.8
1933	146.6	150.1	179.7	204.1	140.0	155.7	165.4	176.1	149.7	162.6
1934	127.3	122.7	142.7	194.0	126.8	132.6	200.9	195.5	144.4	152.9
1935	114.2	109.9	104.7	125.5	109.5	121.5	141.2	127.3	105.3	117.2
1936	97.4	88.3	91.5	130.7	96.6	94.5	106.5	106.2	97.3	100.5
1937	88.1	75.9	81.3	104.7	81.0	93.4	92.4	102.1	94.5	82.5
1938	103.5	101.0	106.2	119.4	108.1	106.7	112.5	112.7	131.3	112.9
1939	100.1	102.5	102.6	115.2	97.5	102.0	119.7	114.6	113.9	102.4

1/Revised for dates prior to Oct. 1, 1939.



FARM LABOR: SUPPLY IN RELATION TO DEMAND BY  
CROP-REPORTING DISTRICTS, OCTOBER 1, 1939



U S DEPARTMENT OF AGRICULTURE

NEG 66 AGRICULTURAL MARKETING SERVICE

THE FARM LABOR SUPPLY WAS REPORTED IN EXCESS OF THE DEMAND FOR WORKERS IN NEARLY ALL DISTRICTS WEST OF THE MISSISSIPPI RIVER. IN THE TIER OF STATES EXTENDING FROM NORTH DAKOTA SOUTH TO TEXAS, WHERE DROUGHT CAUSED CONSIDERABLE DAMAGE TO CROPS, SUPPLY WAS REPORTED AS BEING GREATLY IN EXCESS OF DEMAND. FOR THE EASTERN PORTION OF THE COUNTRY, SUPPLY AND DEMAND WERE MORE EVENLY BALANCED, WITH DEMAND IN NEW ENGLAND AND A FEW OTHER EASTERN STATES SOMEWHAT LARGER THAN SUPPLY.



EXHIBIT "E"  
UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

Washington, D. C.  
November 15, 1939

FARM EMPLOYMENT AT  
LOW LEVEL ON NOVEMBER 1

The decline in the number of persons employed on United States farms during October was only slightly more than the usual seasonal decline during that month, the Agricultural Marketing Service reported today. Based on reports from 22,216 crop correspondents, the total employment of both family and hired workers is estimated at 10,762,000 persons on November 1. This is the smallest November 1 total during the 14-year period covered by the record, and compares with total employment on November 1 last year, of 11,166,000 persons, and 11,413,000 the 10-year (1929-38) average for that date.

It is estimated that 8,123,000 of the total number of persons working on farms as of the first of the month were farm operators and unpaid family workers. This group accounts for the more than usual decline in the total number of persons employed on farms, for the decrease in hired help during October was somewhat less than usual. The number of hired workers on farms November 1 is estimated at 2,639,000, compared with 2,733,000 a year earlier. Decreases in farm employment during October were larger in the South Central and South Atlantic regions than elsewhere.

Over half of the corn acreage in the Corn Belt was husked by November 1. Potato digging and harvesting of sugar beets was nearing completion in most areas toward mid-November as the 1939 season drew to a close. Unfavorable moisture conditions over much of the winter wheat area hampered fall seeding operations and contributed to the decline in farm employment. Unusually favorable weather conditions for picking cotton hastened the harvest of that crop and was a contributing factor to the low level of farm employment in the Cotton States.

Continued on page 3.

Farm Employment, November 1, 1939, with Comparisons

Geographic division	Sept. 1, 1938	Oct. 1, 1938	Nov. 1, 1938	Sept. 1, 1939	Oct. 1, 1939	Nov. 1, 1939
	1,000	1,000	1,000	1,000	1,000	1,000
	<u>persons</u>	<u>persons</u>	<u>persons</u>	<u>persons</u>	<u>persons</u>	<u>persons</u>
	<u>TOTAL EMPLOYMENT</u>					
United States	11,594	12,054	11,166	11,659	11,886	10,762
New England	273	268	255	287	265	248
Middle Atlantic	658	633	597	644	625	611
East No. Central	1,535	1,551	1,518	1,519	1,516	1,498
West No. Central	1,794	1,741	1,721	1,835	1,745	1,722
South Atlantic	2,271	2,380	2,144	2,268	2,353	2,090
East So. Central	1,928	2,176	1,842	1,944	2,124	1,730
West So. Central	1,895	2,177	2,078	1,903	2,191	1,878
Mountain	540	506	475	518	493	467
Pacific	700	622	536	741	574	518
	<u>FAMILY WORKERS</u>					
United States	8,562	8,395	8,437	8,640	8,864	8,123
New England	166	166	160	182	166	163
Middle Atlantic	410	401	401	423	403	410
East No. Central	1,172	1,189	1,139	1,158	1,128	1,123
West No. Central	1,354	1,329	1,316	1,387	1,305	1,285
South Atlantic	1,695	1,784	1,626	1,710	1,767	1,585
East So. Central	1,651	1,857	1,579	1,659	1,839	1,495
West So. Central	1,458	1,616	1,620	1,463	1,653	1,470
Mountain	305	286	279	297	284	284
Pacific	351	318	313	361	319	308
	<u>HIRED WORKERS</u>					
United States	3,032	3,158	2,733	3,019	3,022	2,639
New England	107	102	95	105	99	85
Middle Atlantic	248	252	196	221	222	201
East No. Central	363	412	379	361	388	375
West No. Central	440	412	405	448	440	437
South Atlantic	576	596	518	558	586	505
East So. Central	277	319	263	285	285	235
West So. Central	437	561	458	440	538	408
Mountain	235	220	195	221	209	183
Pacific	349	304	223	380	255	210

Based on reports from 22,216 crop correspondents.

UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

(Exhibit "E")

Average wage rate for picking 100 pounds of seed cotton,  
by States, 1926-39

State:	1926:	1927:	1928:	1929:	1930:	1931:	1932:	1933:	1934:	1935:	1936:	1937:	1938:	1939:
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Va.	1.00	1.12	1.23	1.15	.75	.45	.34	.45	.65	.65	.70	.75	.65	.60
N.C.	1.03	1.07	1.07	1.01	.58	.36	.38	.48	.65	.65	.65	.70	.60	.60
S.C.	.82	.78	.83	.81	.52	.36	.36	.45	.50	.50	.55	.60	.50	.50
Ga.	.90	.88	.85	.90	.57	.35	.33	.45	.50	.50	.55	.60	.50	.50
Fla.	1.12	.95	1.02	1.07	.76	.41	.39	.48	.55	.55	.60	.65	.60	.60
Ill.	-	1.20	1.20	1.15	.71	.50	.40	.65	.75	.75	.90	.70	.70	.70
Mo.	1.12	1.14	1.14	1.12	.71	.49	.52	.67	.80	.75	.95	.80	.75	.75
Kans.	-	1.50	1.40	1.30	.75	.45	.42	.65	.75	.70	.75	.65	.65	.65
Ky.	1.10	1.20	1.20	1.18	.70	.49	.50	.60	.80	.75	.95	.80	.80	.80
Tenn.	1.05	1.08	1.04	1.34	.63	.43	.47	.54	.65	.60	.80	.70	.60	.60
Ala.	1.03	.96	.95	.92	.55	.34	.36	.45	.55	.50	.60	.60	.50	.50
Miss.	1.16	1.08	1.02	1.08	.56	.39	.40	.49	.55	.55	.75	.80	.55	.60
La.	1.12	1.03	1.03	1.01	.61	.41	.39	.48	.55	.55	.65	.70	.55	.55
Tex.	1.20	1.24	1.21	1.11	.71	.44	.45	.55	.60	.60	.65	.65	.55	.55
Okla.	1.28	1.40	1.28	1.22	.73	.45	.48	.65	.75	.70	.75	.75	.70	.65
Ark.	1.06	1.05	1.03	1.06	.56	.40	.44	.52	.60	.55	.75	.70	.60	.60
N.Mex.	1.15	1.30	1.22	1.25	.68	.43	.44	.55	.65	.65	.70	.70	.60	.65
Ariz.	1.45	1.53	1.50	1.50	.89	.58	.50	.67	.90	.90	1.10	.85	.80	.90
Calif.	1.55	1.47	1.46	1.45	.89	.50	.45	.65	.90	.90	1.00	.95	.75	.85
U.S.	1.11	1.12	1.10	1.06	.67	.41	.42	.53	.60	.58	.69	.69	.57	.58

Continued from page 1.

Cotton Picking Rates Show Little Change

The Agricultural Marketing Service also reported that wage rates paid cotton pickers during the 1939 harvesting season were only slightly above the relatively low rate paid in 1938. An average of 58 cents for picking 100 pounds of seed cotton was reported by crop correspondents, as compared with 57 cents per 100 pounds in 1938. Reported average rates ranged from a low of 50 cents in the South Atlantic region to a high of 90 cents per 100 pounds in Arizona. In addition to the foregoing rates, cotton pickers are often furnished housing and transportation, with a higher rate per 100 pounds for those pickers who do not occupy farm cabins. Only Mississippi and the States in the extreme Southwest showed an increase in rates over last year.





Questionnaire Used to Obtain Information on Crop Conditions and Farm Labor  
October 1939 (Front)

Exhibit F.

[O. E. 2-5304]  
"D"

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE—DIVISION OF AGRICULTURAL STATISTICS  
WASHINGTON, D. C.

[OCTOBER 1939]

# OCTOBER GENERAL SCHEDULE

This schedule should be mailed by you by October 1, 1939, in the enclosed return envelope, which requires no postage. Report ONLY on such crops named as are grown in your locality; report for that part of the country about you which comes under your personal observation, or with which you are familiar. Please read carefully the instructions on the other side before making report.

Condition should be reported on the basis of 100 representing a normal condition. (See instructions 1 and 2 on other side.)

RETURN THIS SCHEDULE EVEN THOUGH YOU CAN REPORT FOR ONLY ONE OR TWO ITEMS

Corn		Durum wheat	Other spring wheat	Oats	Barley	Buckwheat	Flaxseed	Emmer and spelt	Sugar beets for sugar	Potatoes	Tabacco	Beans, dry, edible	Hay (all tame) (See instructions 4 and 5)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Condition	Probable yield per acre this year	Yield per acre this year	Yield per acre this year	Yield per acre this year	Yield per acre this year	Condition at time of harvest	Probable yield per acre this year	Yield per acre this year	Probable yield per acre this year	Condition	Probable yield per acre this year	Condition per acre this year	Probable yield per acre this year	Condition per acre this year	Probable yield per acre this year	Yield per acre this year	Tons of 2,000 lb.
Percent	Bu. of 70 lb. in ear	Bushels of 60 lb.	Bushels of 60 lb.	Bushels of 32 lb.	Bushels of 48 lb.	Percent	Bushels of 48 lb.	Bushels of 40 lb.	Tons of 2,000 lb.	Percent	Bushels of 60 lb.	Percent	Pounds	Percent	Bushels of 60 lb.	Tons of 2,000 lb.	

[OCTOBER 1939]

PLEASE WRITE PLAINLY YOUR NAME AND ADDRESS BELOW

## SYMBOLS TO BE USED

Use cross (X) when crop is not grown at all or is grown to so small an extent as not to be worth reporting.  
Use dash (—) when information is not sufficient for an estimate.  
Write in the word "Failure" to indicate an entire failure.  
Use letter (O) only when zero or none is meant.

X  
"Failure"  
O

THIS SCHEDULE SHOULD BE MAILED BY YOU BY OCTOBER 1, 1939

Date mailed

Name

County

Township

(In which farm is located)

Post office

R. D. No.

State

Alfalfa hay		Millet and Sudan		Pasture		Apples		Grapes		Plums and fresh prunes		Corn		Wheat		Oats		Milk production (Report for your own farm)				[OVER]
(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	Total production of milk by your herd yesterday. (Report in either pounds or gallons)		Pounds	Gallons				
Yield per acre this year	Yield per acre this year	Yield per acre this year	Condition	Condition (percent of a full crop)	Condition (percent of a full crop)	Average price received by farmer for the 1939 crop, per bushel of 56 lb.	Total bushels of corn produced on this farm last year (1938)	Bushels of old corn on this farm Oct. 1, 1939. (See instruction 5)	Total bushels of wheat produced on this farm in 1939	Bushels of wheat on this farm Oct. 1, 1939. (See instruction 5)	Total bushels of oats produced on this farm in 1939	Bushels of oats on this farm Oct. 1, 1939. (See instruction 5)	Number of cows in your herd yesterday (both dry and in milk)	Number of all milk cows in your herd yesterday (both dry and in milk)	Number of cows milked on your farm yesterday	Number			Number			
Tons of \$,000 lb.	Tons of \$,000 lb.	Tons of \$,000 lb.	Percent	Percent	Percent	\$ Ct.	Bu. of 70 lb. in ear	Bu. of 70 lb. in ear	Bushels of 60 lb.	Bushels of 60 lb.	Bushels of 32 lb.	Bushels of 32 lb.	Number	Number	Pounds	Gallons						

[OVER]

**OCTOBER 1939]**

4 Include under "All tame hay" all cultivated grasses and legumes, alone or mixed, such as timothy, clover, alfalfa, millet, Sudan, etc., as well as other grasses which naturally come into meadows, including junegrass, reedtop, etc., and all grains, including field beans and peas, cut green and cured for hay; but exclude prairie or wild grasses, or other wild or swamp meadows which are not cultivated in rotation. (See item 18.)

5 In reporting grain on this farm October 1, 1939, include only such as is actually on the farm or in the producer's private granary and not such as may have been removed to public elevators, public granaries, railway stations, or on board cars even though still belonging to the producer. (See items 27, 29, and 31.)

6 Report percent of present farm labor supply and demand at current wage rates, in comparison with the normal supply and demand at this season of the year. (See items 32 and 44.)

grown to so small an extent as not to be worth reporting.

8 Use the schedule only for the report. Make all other communications on a separate sheet of paper, which may be enclosed in envelope with schedule but each sheet of paper should be labeled "Your name, State and post-office address written plainly thereon."

9 It is important that reporters mail their reports by the date indicated, as the report of the Department cannot be delayed for those which are not promptly returned.

Respectfully,

REMARKS:



Questionnaire Used to Obtain Information on Cotton Crop Conditions and Cotton Picking Rates,  
November 1939

Exhibit G.

[C. E. 2-5342]

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE—DIVISION OF AGRICULTURAL STATISTICS  
WASHINGTON, D. C.

[NOVEMBER 1, 1939]

NOVEMBER 1 COTTON SCHEDULE

Name .....	.....
Post office .....	R. D. No. ....
County (in which farm is located) .....	.....
State .....	.....

DEAR SIR:

Please mail this schedule promptly by November 1, 1939, in the enclosed envelope, WHICH REQUIRES NO POSTAGE. Please report separately for Short and Long Staple Cotton. Your cooperation in furnishing the requested information will be appreciated. Please read carefully the instructions below before making the report.

INSTRUCTIONS TO REPORTERS

1. A "normal" or "full" yield, represented by 100 percent condition, is that yield per acre which is expected when the season is favorable and insects and diseases have caused little or no damage. A "normal" condition of cotton is that condition of growth and vitality and relative freedom from insects and diseases which is expected in a generally favorable season. While the "normal" (100 percent yield or condition) is higher than that of ordinary seasons, it may be exceeded by the bumper yield, or very high condition, of an exceptionally favorable year. In estimating the condition of the cotton crop, a reporter should take into consideration not only the growth and appearance of the plant, but every factor within his knowledge which influences the probable yield per acre. In estimating condition, quality should not be taken into consideration except insofar as it affects the quantity that will be actually harvested. If the present condition is 10 percent above the normal, the answer should be filled in as 110; if 5 percent below, it should be reported as 95, etc. (See item 1.)

2. While it is too early for an exact statement of yield per acre, picking is probably far enough advanced to enable reporters to make an estimate of the per-acre yield for the entire season. (See items 4 and 5.)

Respectfully,

*W. H. Callender*  
Chairman, Crop Reporting Board.

RETURN SCHEDULE EVEN THOUGH YOU CAN REPORT FOR ONLY ONE OR TWO ITEMS

PLEASE REPORT SEPARATELY FOR SHORT AND LONG STAPLE COTTON	REPORT FOR YOUR IMMEDIATE LOCALITY							REPORT FOR YOUR FARM (10) What is the average weight per bale of cotton ginned from your crop this season? (Include picking and time)			
	(1) Condition of cotton of Nov. 1, 1939, as compared with normal (See instruction 1)	(2) How many bolls per plant are safe to date this year? (Include those already picked)	(3) Size of mature bolls this year compared with usual size. (Let usual=100%)	Probable yield per acre in your locality this season (See instruction 2)		(6) What percentage of the total cotton crop in your locality has been ginned to date?	(7) What percentage of the total cotton crop in your locality has been picked to date?		(8) Average price paid this year for picking 100 pounds of seed cotton	(9) How many bales do you estimate will be ginned in your county this season?	Pounds
	Percent	Number	Percent	(4) Seed cotton Pounds	(5) Lint cotton Pounds	Percent	Percent		Dol. Ct.	Bales	
SHORT											
LONG (Pima, SXP, or Sea-Island)											

USE BACK OF SCHEDULE FOR COMMENTS



1,942

Hale, R.F. &amp; Gastineau, R.L.

A42R27

Reliability and adequacy of farm wage

rate data. 1940

APR 30 1940

DEC 11 1941



